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PERSONAL.

Mr. Eugene Wait has been appointed City Electrician of Tonawanda, N. Y., succeeding Mr. Bernard Burd, who has resigned.

Mr. Wellington B. Lee, M. Am. Soc. C. E., has been appointed Civil Engineer of the Ramapo Iron Works, Hillburn, N. Y.

Mr. F. B. Griffith, Master Mechanic of the Delaware, Lackawanna & Western R. R., at Buffalo, N. Y., has resigned his position.

Mr. William R. Davis has been appointed Chief Bridge Designer and Inspector in the State Engineer's department, at Albany, N. Y.

Mr. William R. Hill, M. Am. Soc. C. E., has been engaged by the city of Elmira to appraise the plant of the Elmira Water-Works Co.

Prof. Ward Baldwin, M. Am. Soc. C. E., Professor of Civil Engineering in the University of Cincinnati, has gone to Europe for a pleasure trip.

Messrs. Hermann Ortmann, Chief Engineer, and Max Hoffmann, of the Roechling Iron & Steel Works, Voelkingen, Germany, are now in this country.

Lieut. C. P. Eaton, U. S. N., has been detached from the Torpedo Station at Newport, R. I., and ordered to South Bethlehem, Pa., to act as inspector of steel.

Mr. Samuel F. Prince, Superintendent of Motive Power and Equipment of the Long Island R. R., has resigned, to accept a position on the Philadelphia & Reading R. R.

Mr. Harry G. White has been appointed an assistant engineer on the surveys to be made by the Isthmian Canal Commission. He was formerly engaged on the Erie Canal improvements.

Mr. S. B. Curfman has resigned as City Engineer of Steubenville, O., to become Superintendent of the City Water-Works. Mr. C. E. Flannagan has been appointed to succeed Mr. Curfman.

Mr. W. J. Baxter, Naval Constructor, U. S. Navy, has been detached from the Bureau of Construction and Repair at Washington, D. C., and ordered to duty at the Navy Yard, Boston, Mass.

Mr. Phillip Wallis, Master Mechanic of the Lehigh Valley R. R., has been appointed Superintendent of Motive Power and Equipment of the Long Island R. R., succeeding Mr. Samuel F. Prince.

Mr. C. W. Parks, Civil Engineer, U. S. Navy, has been detached from the Bureau of Yards and Docks at the Navy Department, Washington, D. C., and has been ordered to the naval station at Porto Rico.

Mr. Horace Judd, of South Hadley Falls, Mass., formerly Professor of Civil Engineering at Columbia University, has been elected to a similar position in the Pratt Institute, Brooklyn, N. Y.

Mr. Cyrus Robinson has been appointed Chief Engineer of the Corliss engine department of the Westinghouse Machine Co., Pittsburg, Pa. He was formerly with the E. P. Allis Co., of Milwaukee, Wis.

Mr. J. B. Marston, Superintendent of the Buffalo Division of the Delaware, Lackawanna & Western R. R., has had his jurisdiction extended to Binghamton, and over the Cayuga Division, from Owego to Ithaca.

Mr. John McConnell has resigned his position as Superintendent of the open hearth steel department of Jones & Laughlins, of Pittsburg, to accept a similar position with the Lukens Iron & Steel Co., of Coatesville, Pa.

Mr. Daniel T. Hunt has been elected President of the North Chicago Street Ry. Co. and the West Chicago Street Ry. Co., succeeding Mr. Chas. T. Yerkes. He is manager of the Chicago branch of the American Surety Co.

Mr. W. K. Morley, formerly of the Chicago & Alton R. R., has been appointed Superintendent of Transportation and Telegraph of the Louisville, Evanston & St. Louis Consolidated R. R., with headquarters at Princeton, Ind.

Mr. George Clark has resigned his position as Superintendent of Construction for the Newport News Shipbuilding & Dry-Dock Co., and has accepted a similar position with the Cramp & Sons Ship & Engine Building Co., of Philadelphia, Pa.

Mr. W. B. Hixson, Superintendent of Bridges, Buildings and Water Supply of the Morris & Essex Division of the Delaware, Lackawanna & Western R. R., has been put in charge of all the bridges, buildings and water supply now controlled by the Lackawanna system.

Mr. Levi B. Paxson, Superintendent of Motive Power and Rolling Equipment of the Philadelphia & Reading R. R., has been appointed Consulting Mechanical Engineer of the road, and will be succeeded in his former position by Mr. Samuel F. Prince, Superintendent of Motive Power of the Long Island R. R.

Mr. O. S. Doolittle, who has been Superintendent of the Reading & Columbia Division of the Philadelphia & Reading Ry., has retired from service. Mr. W. G. Besler, Superintendent of the St. Louis Division of the Chicago, Burlington & Quincy R. R., has been appointed Superintendent of the main line of the Philadelphia & Reading Ry., with headquarters at Reading, Pa., to succeed Mr. Alexander M. Wilson, who returns to his former position as Superintendent of the Reading & Columbia Division.

Mr. T. B. Trigg has been appointed Assistant to the President of the Virginia Iron, Coal & Coke Co., of Bristol, Va. Mr. Walter Graham has been appointed General Superintendent, in charge of operations of mines, furnaces, spike and rolling mills, foundries and machine shops. Mr. Joseph L. Hunter, M. Am. Soc. M. E., has been appointed Mechanical Engineer, in charge of betterments and repairs of furnaces, mills, foundries and machine shops. Mr. C. O. Parker has been appointed Civil and Mining Engineer. Mr. William Brown has been appointed Manager of Sales Department, and Mr. Frank P. Harmon has been appointed Purchasing Agent and Manager of Stores.

Mr. Oscar Claussen has been elected City Engineer of St. Paul, Minn., to succeed Mr. L. W. Rundlett, M. Am. Soc. C. E., who has held the position since 1884, having been City Engineer in 1881-83 and then Engineer of the Water Department until 1885. Mr. Claussen was born at Terre Haute, Ind., in 1861, and was at one time in the Bridge Department of the Northern Pacific R. R. He resigned in 1887 to become Bridge Engineer of the Chicago Great Western Ry. In 1890 he became Engineer for the Northwest General Electric Co., and put in the street car systems at St. Cloud and Winona, Minn.; Ashland, Wis., and also the line to White Bear. From his connection with this company he drifted into the electrical engineering business, in which he has since been engaged.

OBITUARY.

Mr. Otto F. Roth, of the Salt Lake & Ogden Gas & Electric Light Co., died at Ogden, Utah, July 19. He was formerly in the employ of the Laclede Gas Co., and the Laclede Light & Power Co., of St. Louis, Mo.

Prof. Henry C. Bowen, of the School of Mines, Columbia University, New York city, died at North Fenton, N. Y., July 26, at the age of 55. For ten years he was chief chemist of the Barber Asphalt Paving Co., and has been consulting chemist of the company since 1897.

Mr. Theodore T. Taylor, engineer of the Fruin-Bambrick Construction Co., St. Louis, Mo., died in that city July 23. He was born in Philadelphia in 1833, graduated at the University of Pennsylvania, and served through the Civil War. After the war he studied law for a time, but afterwards took up the profession of engineering.

Mr. Nicholas Riggenbach, the builder of the Righi Railway, in Switzerland, died at Basle, Switzerland, July 25. The Righi Railway was the first steep-grade rack railway in Europe, and was designed upon the plans of the Mount Washington Ry., built by Mr. Marsh, who was the inventor of the ladder-rack system which in Europe is generally attributed to Mr. Riggenbach.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

THE LOUISIANA ENGINEERING SOCIETY.
Aug. 8. Secy., J. F. Coleman, 712 Union St., New Orleans, La.

WISCONSIN STATE CHEMICAL ASSOCIATION.
Aug. 11. Secy., I. Ladoff, 154 Knapp St., Milwaukee, Wis.

MONTANA SOCIETY OF ENGINEERS.
Aug. 12. Butte, Mont. Secy., A. S. Hovey, Nat'l Bank Bldg., Helena, Mont.

INTERNATIONAL ACETYLENE ASSOCIATION.
Aug. 14. Special meeting and banquet; at the Great Northern Hotel, Chicago. Secy., J. B. Carroll, 34 Market St., Chicago, Ill.

INTERNATIONAL ASSOCIATION FOR TESTING MATERIALS, AMERICAN SECTION.
Aug. 15, 16 Annual meeting at Pittsburg, Pa. Secy., Richard L. Humphrey, City Hall, Philadelphia, Pa.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.
Aug. 17-19. Annual meeting, Columbus, O. Secy., Albert Kingsbury, Durham, N. H.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.
Aug. 21-26. Annual meeting at Columbus, O. Secy., Prof. Frederick Bedell, Ithaca, N. Y. Local Secy., Prof. B. F. Thomas, Columbus, O.

AMERICAN FORESTRY ASSOCIATION.
Aug. 22, 23. At Columbus, O. Secy., G. P. Whittlesey, Washington, D. C.

ENGINEERS' CLUB OF TORONTO.
Sept. 5. Secy., Willis Chipman, 103 Bay St., Toronto, Canada.

CENTRAL STATES WATER-WORKS ASSOCIATION.
Sept. 5 to 7. At Cincinnati. Secy., John Fisher, Hamilton, O.

NATIONAL ASSOCIATION OF MUNICIPAL ELECTRICIANS.
Sept. 5 to 7. Wilmington, Del.

ASSOCIATION OF EDISON ILLUMINATING COMPANIES.
Sept. 12. Annual meeting, Philadelphia. Secy., Wilson S. Howell, P. O. Box 114, Newark, N. J.

ROADMASTERS' ASSOCIATION OF AMERICA.
Sept. 12 to 15. Annual meeting at Detroit. Secy., J. B Dickson, C. & N. W. Ry., Sterling, Ill.

NEW ENLAND WATER-WORKS ASSOCIATION.
Sept. 13 to 15. At Syracuse, N. Y. Secy., J. C. Whitney, Newton, Mass.

LEAGUE OF AMERICAN MUNICIPALITIES.
Sept. 19 to 22. At Syracuse, N. Y. Secy., B. F. Gilkison, New York city.

AMERICAN SOCIETY OF RAILWAY SUPERINTENDENTS.
Sept. 20. At Detroit. Secy., C. A. Hammond, Asbury Park, N. J.

CANADIAN ROADMASTERS' ASSOCIATION.
Sept. 20. Annual convention, at Toronto, Ont. Secy., J. Drinkwater, C. P. Ry., Winchester, Ont., Canada.

AMERICAN INSTITUTE OF MINING ENGINEERS.
Sept. 25. Annual meeting, San Francisco, Cal. Secy., R. W. Raymond, 99 John St., New York city.

EASTERN MAINTENANCE OF WAY ASSOCIATION.
Sept. 26 to 29. Portland, Me. Secy., F. C. Stowell, B. & M. R. R., Ware, Mass.

AMERICAN STREET RAILWAY ASSOCIATION.
Oct. 17. at Chicago. Secy., T. C. Penington, Chicago, Ill.

ASSOCIATION OF RAILWAY SUPERINTENDENTS OF BRIDGES AND BUILDINGS.
Oct. 17. At Detroit. Secy., S. F. Patterson, B. & M. R. R., Concord, N. H.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.—The annual meeting will be held Aug. 17 to 19 at the Ohio State University, Columbus, O. There will be an address by the President, Mr. Thomas C. Mendenhall, President of the Worcester Polytechnic Institute, and the following papers are on the program:

"The Essentials of a Technical Education," A. L. Rice, Professor of Steam Engineering and Electricity, Pratt Institute.

"The Engineering Educational Value of a Refrigerating Plant," Wm. T. Magruder, Professor of Mechanical Engineering, Ohio State University.

"The Place of Correspondence Schools in Engineering Education," Edgar Marburg, Professor of Civil Engineering, University of Pennsylvania.

"Advanced Algebra in Engineering and Other College Courses," F. L. Emory, Professor of Mechanics and Applied Mathematics, University of West Virginia.

"Hydrocarbon Engine Testing Plant of the Ohio State University," Wm. T. Magruder, Professor of Mechanical Engineering, Ohio State University.

"Teaching Force Assigned per Student in the Several Divisions of a Technical College," J. P. Jackson, Professor of Electrical Engineering, Pennsylvania State College.

"Methods of Teaching: by Text-Book, by Lectures, by Laboratory, by Design, by Memoir," C. F. Allen, Professor of Railway Engineering, Massachusetts Institute of Technology.

"A Catalogue and Clipping Case," Wm. T. Magruder, Professor of Mechanical Engineering, Ohio State University.

"Engineering Education and Expansion," W. S. Aldrich, Professor of Electrical Engineering, University of Illinois.

"A Convenient Laboratory Equipment for the Study of Direct Current Dynamos and Motors," H. B. Smith, Professor of Electrical Engineering, Worcester Polytechnic Institute.

"A Comparative Study of the Electrical Engineering Courses Given in Different Institutions," F. C. Caldwell, Associate Professor of Electrical Engineering, Ohio State University.

"An Apprentice System in College Shops," O. P. Hood, Professor of Mechanical and Electrical Engineering, Michigan College of Mines.

"Drawing, Mechanical Laboratory Practice and Shop-work in Engineering Colleges," H. E. Smith, Assistant Professor of Mechanical Engineering, University of Minnesota.

"The Desirability of Uniformity in the Use of Mathematical Symbols and Terms," A. E. Haynes, Professor of Mathematics, University of Minnesota.

"The Use of Graphical Methods in the Solution of Problems in Mechanics," C. M. Woodward, Professor of Applied Mechanics, Washington University.

"On the Nature of Entropy," Albert Kingsbury, Professor of Mechanical Engineering, New Hampshire College.

NEW PUBLICATIONS.

GOOD ROADS FOR FARMERS.—By Maurice O. Eldridge, Assistant Director, Office of Road Enquiry, U. S. Department of Agriculture, Washington, D. C. Pub. doc.; paper; 8vo.; pp. 47; illustrated.

This pamphlet is intended to educate the rural population in matters relating to the expensiveness of bad roads, and the proper construction of good roads. It is illustrated by cross sections of roads and road drains, views of road machinery, etc. Among the materials used in construction, and the proper use of which is described, are dirt, sand, sawdust, logs (corduroy), gravel, shells and stone.

BLUE BOOK OF AMERICAN SHIPPING.—Published by the Marine Review Publishing Co., Cleveland, O. Cloth; 8vo.; pp. 441; illustrated. $5.

This annual publication is a marine and naval directory of the United States, containing particulars of vessels of the American navy and mercantile marine, lists of steamship lines, statistics of water commerce, etc. There are also lists of ship owners, ship and engine builders, naval architects (American and foreign), marine engineers, members of the U. S. Engineer Corps (with the works upon which they are engaged), heads of government bureaus connected with shipping, contractors for dredging and harbor work, and dealers in engineering and marine supplies. There are also statistics of iron ore production, freight rates, shipping tonnage, and particulars of large steamers and fast runs. The book is illustrated by a number of half-tone engravings.

PROCEEDINGS OF THE RAILWAY SIGNALING CLUB, 1897-1898.—Published by the Club. Secretary, C. O. Tilton, West Milwaukee, Wis. Paper; 8vo.; pp. 129.

This is the first volume of the published proceedings of the club, and includes the papers and discussions presented at the various meetings of the two past years. The earlier papers are to be found only in the pages of the engineering journals. In this volume there is first the constitution of the club, followed by a list of about 100 members, and the "Rules for the Operation and Maintenance of Interlocking Plants," recommended by the club. The principal papers are as follows: "The Derail as a Moral and Physical Agent in Safe Railway Travel,"

Charles Hansel; "Successful Automatic Signals," V. K. Spicer; "The Signal Department," W. H. Elliott; "The Operation of Block Signals on a Single Track Railway," W. A. D. Short; "Some Interlocking Devices," A. H. Rudd; "Should One or Two Wires be Used for Wire Connected Signals?" H. M. Sperry.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½ x 6 ins., 6 x 9 ins., and 9 x 12 ins.)

PROTECTIVE PAINT FOR IRONWORK.—The Goheen Mfg. Co., Canton, O. Paper; 9 x 5¾ ins.; pp. 20; illustrated.

This pamphlet consists mainly of about 20 half-tone engravings of bridges, buildings, ore-handling plants, etc., on which the company's "carbonizing coating" has been used, in order to protect the metal from corrosion due to atmospheric effects, gases, sulphur fumes, acids, etc.

STEAM ENGINES.—A. L. Ide & Sons, Springfield, Ill. Paper, 6 x 9 ins.; pp. 54; illustrated.

The well-known "Ideal" engine is a horizontal engine, with piston or slide valve, and is made both single and tandem-compound. The engine is shown in various designs, for belt driving and direct coupled to electric dynamos. The detail parts of the engine are illustrated and described.

THE JANNEY COUPLER.—The McConway & Torley Co., Pittsburg, Pa. Cloth; 9 x 12 ins.; pp. 99; illustrated.

This is a catalogue containing illustrations and lists of parts of the various coupler equipments for passenger and freight cars, and locomotives. These include different styles of draft rigging, car platforms, vestibules, pilot and tender couplers, etc. The illustrations are all line engraving, well printed on plate paper.

BALL AND ROLLER BEARINGS.—The Ball Bearing Co., Watson St., Boston, Mass. Paper; 4½ x 7 ins.; pp. 36; illustrated.

Among the interesting applications of the ball bearings are step and thrust bearings, the latter being for small propeller shafts, worm gearing, fans, machine tools, etc. Roller and ball bearings for axles of vehicles are also shown, and there are tables of dimensions and prices.

WINDING ENGINES, LOCOMOTIVES AND TRACTION ENGINES.—Charles L. Heisler, Consulting Engineer, Erie, Pa. Paper; 6 x 9 ins.; pp. 12; illustrated.

The steam donkey engine shown has the drum and capstan head driven by gearing from diagonal cylinders. The arrangement is an adaptation of that used in Mr. Heisler's geared locomotives, which have been described in our columns. The traction engines have three wheels, and the gearing is driven by horizontal cylinders beside the smokebox.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
Aug. 3.	Boiler at water-works, Yonkers, N. Y. Advertised, Engineering News, July 13.		July 13
Aug. 3.	Altering school building, New York, N.Y.		July 27
Aug. 3.	Main sewers, Philadelphia, Pa.		July 27
Aug. 3.	Water-works, Red Lodge, Mont.		July 27
Aug. 5.	Addition to almshouse, Washington, D.C.		July 27
Aug. 7.	Stone, St. Augustine, Fla. Advertised, Eng. News, July 13 to Aug. 3.		July 13
Aug. 7.	Water tower, Lincoln, Neb. Advertised, Engineering News, July 20.		July 20
Aug. 7.	Laying mains, etc., Oconomowoc, Wis. Advertised, Engineering News, July 27.		July 27
Aug. 7.	Artesian wells, Toledo, O.		July 27
Aug. 7.	Brick sewer, Jackson, Mich.		July 27
Aug. 7.	Pipe sewers, East Liverpool, O.		July 27
Aug. 7.	Water-works, Hudson, Ia. Advertised, Engineering News, July 27.		July 27
Aug. 7.	Artesian well, Fort Hunt, Va.		July 27
Aug. 7.	Pumping engine, Braddock, Pa.		July 27
Aug. 7.	Grading railway, Bedford, O. Advertised, Engineering News, July 27.		July 27
Aug. 7.	College building, Lincoln, Neb.		July 27
Aug. 7.	Hospital buildings, New York.		July 27
Aug. 7.	Sewer, St. Cloud, Minn.		Aug. 3
Aug. 7.	University residence, Sackville, N. B.		Aug. 3
Aug. 7.	Levee work, Greenville, Miss.		Aug. 3
Aug. 7.	Sewers, White Plains, N. Y.		Aug. 3
Aug. 7.	Gas lighting, Cranston, R. I.		Aug. 3
Aug. 7.	School building, Topeka, Kan.		Aug. 3
Aug. 7.	Asylum building, Newark, N. Y.		Aug. 3
Aug. 7.	Court house, New Rockford, N. Dak.		Aug. 3
Aug. 7.	Water tank and tower, Canby, Minn.		Aug. 3
Aug. 7.	Bridge, Wilkesbarre, Pa.		Aug. 3
Aug. 7.	Bridge, Battle Creek, Mich. Advertised, Engineering News, Aug. 3.		Aug. 3
Aug. 7.	Water supply well, Slayton, Minn.		Aug. 3
Aug. 7.	Brick paving, Kenosha, Wis.		Aug. 3
Aug. 8.	Electric supplies,, Brooklyn, N. Y.		Aug. 3
Aug. 8.	Electric lighting, Cynthiana, Ky.		Aug. 3
Aug. 8.	Septic tanks and filter, Independence, Mo.		Aug. 3
Aug. 8.	Electric plant, Vermont, Ill.		Aug. 3
Aug. 8.	School building, Bloomfield, Mo.		Aug. 3
Aug. 8.	Brick sidewalks, Huntington, Ind.		Aug. 3
Aug. 8.	Sprinkling trucks, New York, N. Y.		July 27
Aug. 8.	Paving brick, New York, N. Y.		July 27
Aug. 8.	Road improvements, Rochester, N. Y.		July 27
Aug. 8.	Water-works, Conneautville, Pa. Advertised, Engineering News, July 27.		July 27
Aug. 8.	Files, rollers and shelves, Morristown, N.J. Advertised, Eng. News, July 27 and Aug. 3.		July 27
Aug. 8.	Bridge, Goldendale, Wash.		July 27
Aug. 8.	Cranes, Brooklyn, N. Y.		July 6
Aug. 8.	Water-works, Grand Junction, Colo. Advertised, Eng. News, July 6 and 13.		July 6
Aug. 8.	Breakwater, Burlington, Vt. Advertised, Eng. News, July 13 to Aug. 3.		July 13
Aug. 8.	Dredging, Savannah, Ga. Advertised, Eng. News, July 13 to Aug. 3.		July 13
Aug. 9.	Steel piers, San Francisco, Cal.		July 13
Aug. 9.	Pumpg engns (1,250,000 gals.), Bristol, Eng.		July 13
Aug. 9.	Water-works, Augusta, Ark.		July 13
Aug. 9.	Bridge metal, Chicago, Ill. Advertised, Eng. News, July 13 to Aug. 3.		July 13
Aug. 9.	Bridge, La Grange, Ind.		July 27
Aug. 9.	Dredging, Oakland, Cal.		July 27
Aug. 9.	Bridge, Colfax, Wash.		Aug. 3
Aug. 9.	Pumps, boilers, mains, etc., Philadelphia.		Aug. 3
Aug. 9.	Brick paving, Milford, Del. Advertised, Engineering News, Aug. 3.		Aug. 3
Aug. 10.	Engine-houses (2), Hartford, Conn.		Aug. 3
Aug. 10.	Bridge, Boston, Mass.		Aug. 3
Aug. 10.	Road building, Hamburg, N. J.		Aug. 3
Aug. 10.	Flushing apparatus, Honolulu, H. I. Advertised, Engineering News, Aug. 3.		Aug. 3
Aug. 10.	Brick paving, Charleston, W. Va. Advertised, Engineering News, Aug. 3.		Aug. 3
Aug. 10.	Concrete sidewalk, New York, N. Y.		Aug. 3
Aug. 10.	Street improvements, Kenton, O.		Aug. 3
Aug. 10.	Bonds, Denver, Colo.		July 27
Aug. 10.	Coping for reservoir, Washington, D. C.		July 27
Aug. 10.	Heating apparatus, Cleveland, O.		July 27
Aug. 10.	Court house, Evergreen, Ala.		July 27
Aug. 10.	Steel bridge, Duluth, Minn.		July 20
Aug. 10.	Viaduct, Terre Haute, Ind.		July 20
Aug. 10.	Light-house dwelling, Mobile, Ala. Advertised, Eng. News, July 13 to Aug. 3.		July 13
Aug. 11.	Road improvement, East Liverpool, O.		July 27
Aug. 11.	Lumber, Albany, N. Y. Advertised, Eng. News, Aug. 3 to 17.		Aug. 3
Aug. 11.	Water pipe, valves, etc., Buffalo, N. Y.		Aug. 3
Aug. 11.	Pipe sewer, McConnellsville, O.		Aug. 3
Aug. 11.	Brick paving, Mechanicsville, N. Y.		Aug. 3
Aug. 11.	Street improvements, Omaha, Neb.		Aug. 3
Aug. 12.	Levee work, Vicksburg, Miss.		Aug. 3
Aug. 12.	Navy yard shops, Brooklyn, N. Y.		Aug. 3
Aug. 12.	Granitoid walks, Salem, Ill.		Aug. 3
Aug. 12.	School buildings (2), Lakewood, O.		Aug. 3
Aug. 12.	Street improvements, Youngstown, O.		Aug. 3
Aug. 12.	Church building, Kinkora, P. E. I.		Aug. 3
Aug. 12.	College building, Ripon, Wis.		July 27
Aug. 12.	Removing rock, San Francisco, Cal. Advertised, Eng. News, June 8 to 29.		June 8
Aug. 12.	Rails (30 miles), Rio de Janeiro, Brazil.		June 22
Aug. 12.	Dredging, New York, N. Y. Advertised, Eng. News, July 13 to Aug. 3.		July 13
Aug. 12.	Hydraulic cement, Cincinnati, O. Advertised, Eng. News, July 13 to Aug. 3.		July 13
Aug. 12.	Waterproof asphalt, Philadelphia, Pa. Advertised, Eng. News, July 13 to Aug. 3.		July 13
Aug. 12.	Electric lighting, Evansville, Ind.		July 20
Aug. 12.	Railway supplies, Brazil.		July 27
Aug. 14.	Immigrant station, Ellis Island, N. Y. H.		July 20
Aug. 14.	Electric lighting, Plymouth, Ind. Advertised, Engineering News, July 20.		July 20
Aug. 14.	Bridge, Andalusia, Ala.		June 29
Aug. 14.	Brick sewers, Toledo, O.		July 27
Aug. 14.	Sewers, Washington, D. C. Advertised, Engineering News, July 27.		July 27
Aug. 14.	Paving, Lakewood, O.		July 27
Aug. 14.	Water-works, Vernon, B. C.		July 27
Aug. 14.	Water-works, Cullman, Ala.		July 27
Aug. 14.	Paving, Atlantic City, N. J. Advertised, Engineering News, July 27.		July 27
Aug. 14.	Electric plant, Cullman, Ala.		July 27
Aug. 14.	Bridge, Anderson, Tex.		Aug. 3
Aug. 14.	Hospital building, Evansville, Ind.		Aug. 3
Aug. 14.	Bonds, Augusta, Me.		Aug. 3
Aug. 14.	Bridge, Chilicothe, O.		Aug. 3
Aug. 14.	Asphalt paving blocks, Washington, D. C.		Aug. 3
Aug. 15.	Waterproofing tank, Mount Vernon, N. Y. Advertised, Eng. News, Aug. 3 and 10.		Aug. 3
Aug. 15.	Heating, Minneapolis, Minn.		Aug. 3
Aug. 15.	Superstructure to bridge, St. Paul, Minn.		Aug. 3
Aug. 15.	Artesian well, Anderson, Tex.		July 27
Aug. 15.	Addition to post office, St. Paul, Minn.		July 27
Aug. 15.	Sewage disposal works, Marion, Ia. Advertised, Engineering News, July 27.		July 27
Aug. 15.	School building, Modale, Ia.		July 27
Aug. 15.	Bridge, Pulaski City, Va.		July 27
Aug. 15.	Steel bridge, Glendive, Mont.		July 6
Aug. 15.	Bridge, Laurel, Mont.		July 6
Aug. 15.	Electric plant, Abbeville, S. C.		July 13
Aug. 15.	Lodge building, Woodbine, Ia.		July 20
Aug. 15.	Supplies, Tompkinsville, (S. I.) N. Y. Advertised, Eng. News, July 20 and 27.		July 20
Aug. 15.	Addition to building, Napoleonville, La.		July 27
Aug. 16.	College building, Urbana, Ill.		July 27
Aug. 16.	Heating, elevators, etc., Danville, Ill.		Aug. 3
Aug. 16.	Boiler, New York, N. Y.		Aug. 3
Aug. 16.	Court house, Marshall, Tex.		Aug. 3
Aug. 16.	Life saving station, Grand Marais, Mich.		Aug. 3
Aug. 17.	School building, Madisonburg, O.		Aug. 3
Aug. 20.	Dredging, Franklin, Pa.		Aug. 3
Aug. 20.	Drainage bonds, Winnipeg, Man.		July 20
Aug. 21.	Paving and curbing, Dayton, O.		July 27
Aug. 21.	Intercepting sewers, Le Crosse, Wis. Advertised, Eng. News, July 27 to Aug. 17.		July 27
Aug. 21.	Dredging, Savannah, Ga. Advertised, Eng. News, July 27 to Aug. 17.		July 27
Aug. 21.	School building, Erie, Pa.		Aug. 3
Aug. 21.	School building, Paullina, Ia.		Aug. 3
Aug. 21.	Dock, Kenosha, Wis. Advertised, Eng. News, Aug. 3 to 17.		Aug. 3
Aug. 21.	Electric plant bonds, Redwood City, Cal.		Aug. 3
Aug. 22.	Pier, Ottawa, Ont.		Aug. 3
Aug. 22.	Jetty work, Norfolk, Va. Advertised, Eng. News, July 27 to Aug. 10.		July 27
Aug. 23.	Lease of water power, Chicago, Ill. Advertised, Engineering News, July 6.		July 6
Aug. 23.	Pipe sewer, Columbus, O.		Aug. 3
Aug. 23.	Bridge, Columbus, O.		Aug. 3
No date.	Plans for jail, Norfolk, Va. Advertised, Eng. News, July 27 to Aug. 17.		July 27
No date.	Sewers, Lorain, O.		Aug. 3
"	Bridge, Visalia, Cal.		Aug. 3
"	Ditch, Axial, Colo.		Aug. 3
"	Street lighting, Islip, N. Y. Advertised, Engineering News, Aug. 3.		Aug. 3

RAILWAYS.

BURLINGTON & MISSOURI RIVER.—G. W. Holdredge, Gen. Mgr., Omaha, Neb., informs us that the extension of this line from Arcadia to Sergeant, Neb., 20 miles, will be completed about Aug. 30.——Reports from Granger, Wyo., state that a large party of surveyors are in that vicinity, apparently laying lines for a connecting branch between Ogden, Utah, and the proposed lines in Eastern Wyoming. The corps has equipments and outfits for a whole summer's work.

CHICAGO & ALTON.—Reports state that the new owners of this system will spend between $30,000,000 and $40,000,000 in new bridges, engines, stations, cars, etc. A new $400,000 bridge will be erected across the Missouri River at Kansas City, supplanting the present structure.

CINCINNATI, LOUISVILLE & VINCENNES.—Incorporated in Indiana July 28 with a capital stock of $1,000,000, to operate a portion of the former Baltimore & Ohio Southwestern Ry. Hugh D. McMullen, Aurora, Ind.; Geo. Hoadley, Jr., Cincinnati, O.; and Geo. F. May, New York, are directors.

CINCINNATI, PORTSMOUTH & PARKERSBURG.—This company was incorporated in Ohio June 29, with a capital of $2,000,000, to operate a railway from Cincinnati, O., and passing through Hamilton, Clermont, Warren, Clinton, Highland, Ross, Vinton, Jackson, Athens and Washington counties, with branches from Blanchester to Hillsborough, from Camden to Portsmouth, from Mineral to Carbondale, and from Belpre to Marietta. This property formerly belonged to the Baltimore & Ohio Southwestern and the Ohio & Mississippi Ry. companies, and was purchased by judicial sale July 10 by a committee composed of Edward O. Bacon, George Hoadly, Jr., and J. Chauncey Hoffman, for $3,510,000. The other incorporators are William E. Jones and Edward W. Storey.

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS.—We are informed that this company has made two surveys for a line to bring the Cairo division trains into Danville, Ill., over the Peoria division tracks. Formerly the Wabash tracks were used to enter the city. The new line involves the construction of a bridge of considerable dimensions across the Vermilion River. G. W. Kittredge, Ch. Engr., Cincinnati, O.

COLORADO, TEXAS & MEXICO.—Reports from El Paso, Tex., state that surveys have been completed between Abilene and Haskell, via Anson and Stamford, Tex., 51 miles, for this projected system from Denver, Colo., via the "Panhandle of Texas" to Eagle Pass, Tex., about 780 miles. John M. Blackburn, Ch. Engr.

CONSOLIDATED TERMINAL R. R. CO. OF PITTSBURG.—This company was incorporated in Pennsylvania July 28, with a capital stock of $70,000, to construct a steam railway. G. E. Hoffmaster, Pres., and A. C. Strickland, of Pittsburg; H. B. Rhine, Bellevue, Pa., are incorporators.

COPPER QUEEN CO.—Reports state that this company intends to construct a line from Bisbee to Nacosair, Ariz., about 100 miles.

DETROIT, GRAND RAPIDS & WESTERN.—It is announced that this company will build a line from Trowbridge to the grounds of the Agricultural College, 13½ miles, work to begin within 30 days.

EL PASO & NORTHEASTERN.—George S. Good & Co., El Paso, Tex., and Lock Haven, Pa., are reported to have commenced work on their recently secured contract to construct 60 miles of line for this railway in New Mexico; the northern terminus will be White Oaks, N. Mex. C. B. Eddy, Pres.; H. A. Sumner, Ch. Engr., of El Paso, Tex.

ENID & TONKAWA.—This company has been incorporated in Oklahoma, with $60,000 capital stock, to construct a standard gage line from Enid to Tonkawa, 40 miles. M. A. Low, Topeka, Kan.; C. H. Thompson and Ivan G. Conklin, of Enid, are incorporators.

FOREST CITY & GETTYSBURG.—This company has been incorporated in South Dakota, with $20,000 capital stock, by Osborn W. Bright and Lewis B. Woodruff, New York; S. H. Elrod and S. R. Pursell, Clark, S. Dak.

GREENBRIER.—The contracts for the construction of this proposed line from Caldwell, four miles above Ronceverte, down the Greenbrier River to Marlinton, W. Va., 50 miles, have been awarded to Shanahan, Serpell & Co., and Lane Bros., of Louisville, Ky.; Douglas & Co., Baltimore, Md.; C. D. Laughlin & Co., Richmond, Va., and Luther Wright & Co., Richmond, who will build it in sections of ten miles each. It is said that about 800 men will be employed, and that the line will be completed by February. The Chesapeake & Ohio Ry. Co. will operate the new road. H. C. Simms, Pres., Huntington, W. Va.

HUTCHINSON & SOUTHERN.—The 16-mile extension of this line from Blackwell southeast to the Atchison, Topeka & Santa Fe Ry., near Cross, Okla., has been completed. A further extension to the McAllister coal fields is contemplated. W. A. Bradford, Jr., Pres., Hutchinson, Kan.; H. L. Jackson, Ch. Engr., Blackwell, Okla.

KLONDIKE MINES.—This company has been organized at Ottawa, Ont., with $1,000,000 capital stock, to construct a single or double track line or tramway from Klondike City to Dawson City. Thomas O'Brien, Dawson City, N. W. Ter.; Jas. Seybold, Ottawa; Wm. D. Ross, New Glasgow, N. S., and L. N. Bate, Ottawa, are incorporators.

LITTLE ROCK & HOT SPRINGS.—Incorporated in Arkansas to construct a railway from Little Rock to Hot Springs, via Benton, Ark., thus giving the Choctaw & Memphis R. R. an independent line into Hot Springs. S. W. Fordyce, Pres.; John G. Lonsdale, Vice-Pres., Hot Springs, Ark.; and W. S. Mitchell, Secy., Little Rock.

MATE CREEK & LOGAN COUNTY.—Incorporated in West Virgina, with $10,000 capital stock, to operate a railway. R. Torpin, Philadelphia, Pa.; C. W. Campbell, Huntington, W. Va., are incorporators.

MEXICAN MINERAL.—This company was incorporated in New York July 29, with a capital stock of $350,000, to operate a railway between Monterey and the San Pedro mining district, State of Nuevo Leon, Mexico. Geo. D. Cook, Chicago, Ill.; Robert S. Towne, Geo. F. Peabody and Acosta Nichols, New York, are directors.

MONONGAHELA & WASHINGTON.—Incorporated in Pennsylvania July 20, with $110,000 capital stock, to construct a steam railway in Washington county, Pa. Samuel Rea, Pres., Bryn Mawr, Pa.; W. A. Patton, Radnor, Pa. and John Simpson, Monongahela City, are incorporators.

OHIO, KNOXVILLE & PORT ROYAL.—Reports state that the North Georgia R. R. Co., incorporated in 1890, is about to be reorganized under this name for the purpose of constructing a system between Columbus, O., and Port Royal, S. C. P. K. McCully, Pres.

OKLAHOMA & GULF.—This company has been incorporated in Oklahoma, with $3,000,000 capital stock, to construct a line from Cedarvale, Kan., to Vernon, Tex., via Cowley and Chautauqua counties, Kan., through Oklahoma, to Wilboryce county, Tex.

OREGON R. R. & NAVIGATION.—The Oregon Land & Construction Co., G. W. Hunt, Mgr., is reported to have been awarded the contract for constructing 30 miles of new line for this company, beginning near Riparia, Wash. Hale & Smith, 320 East Water St., Portland, Ore., have also contracted to build from the end of the above 30-mile stretch to the mouth of the Clearwater River, about 40 miles. W. H. Kennedy, Ch. Engr., Portland, Ore.

PITTSBURG, WESTMORELAND & SOMERSET.—Incorporated in Pennsylvania July 20, with a capital stock of $220,000, to operate a steam railway in Westmoreland and Somerset counties. J. Henry Cochran, Pres.; E. R. Payne, and Nelson Byers, all of Williamsport, Pa., are incorporators.

ST. LOUIS, SPRINGFIELD & VINCENNES.—Incorporated in Illinois July 27, with a capital stock of $1,000,000, to construct and operate a line from Vincennes, Ind., to East St. Louis, Ill., 147 miles, and also from Shawneetown, Ill., to Beardstown, 228 miles. Harry H. Phillips, Clyde A. Morrison, and Albert E. Dacy, of Chicago, Ill.

SIERRA RY. OF CALIFORNIA.—Campbell & Buckman, San Francisco, Cal., are reported to have been awarded the contract for grading the branch line from Jamestown to Angels, Cal., 18 miles. At Robinson's Ferry the Stanislaus River will be crossed by a bridge. Work must be completed within five months. T. S. Bullock, Gen. Mgr., Jamestown, Cal.

SMITHFIELD & MASONTOWN.—Incorporated in Pennsylvania July 18, with a capital stock of $110,000, to construct an 11-mile steam railway in Fayette county. John P. Brennan, Pres., Scottdale, Pa.; A. Plumer Austin, Uniontown, Pa., and John C. Neff, Masontown, Pa., are incorporators.

SUWANNEE & SAN PETRO.—This company has been incorporated, with $50,000 capital stock, to construct about 15 miles of railway in Suwannee county, Fla., with a terminus on the Suwannee River. R. Bowen Daniel, Augustus V. S. Smith and E. E. Bixler are incorporators.

WASHINGTON & FRANKLIN.—Wade, Burns & Co., Baltimore, Md., are reported to have been awarded the contract for grading and ballasting four miles of line between Quinsonia and New Franklin, Pa., for this branch of the Western Maryland R. R. This is an extension of the low grade line, already in operation from Hagerstown, Md., to Quinsonia, and is to do away with the need of helping engines at Quinsonia to enable trains to cross the Grindstone Ridge. With this 4-mile extension completed, the heaviest grade between Hagerstown and the

summit will be 37 ft. a mile, over which the ordinary Western Maryland engine will be able to handle about 26 heavily loaded cars. This work being quite heavy, the line will not be completed until late next spring. W. U. Brewer, Pres., Chambersburg, Pa.

STREET AND ELECTRIC RAILWAYS.

HAMPTON, N. H.—The railroad commissioners have granted permission to the Portsmouth Electric R. R. Co. to extend its line, via Rye to Hampton. Lucius Tuttle, Pres., Boston, Mass.

EASTON, MASS.—The Easton St. Ry. Co. has been incorporated with $40,000 capital stock, to construct four miles of street railway from the Houghton line to a connection with the Brockton St. Ry. M. L. Wrann, J. J. McCarty and E. C. Jenny are incorporators.

GARDNER, MASS.—The selectmen of Gardner have granted a franchise to the Templeton St. Ry. Co. to build through this town.

STOUGHTON, MASS.—The Stoughton & Randolph St. Ry. Co. has been incorporated with a capital stock of $80,-000, to construct eight miles of line from Washington St., Easton, via Stoughton and Randolph, to Holbrook. M. L. Wrann, E. F. Draper and W. L. Hodges are incorporators.

HARTFORD, CONN.—The Hartford & West Hartford St. R. R. Co.'s suburban line to Unionville was sold at auction by Receiver Patterson, Aug. 1, to Samuel D. Coykendall, Rondout, N. Y., representing the bondholders, for $20,000.

BALLSTON SPA, N. Y.—The Schenectady & Saratoga Rapid Transit Co. has been granted a franchise to build in the town of Ballston, also in Glenville. It is expected to begin grading this fall and to complete the work by next June. H. V. Lord is interested.

BINGHAMTON, N. Y.—The Binghamton R. R. Co. has under consideration the extension of its Binghamton, Lestershire & Union branch, from Union to Maine. J. P. Clark, Gen. Mgr.

GLENS FALLS, N. Y.—The Glens Falls, Sandy Hill & Fort Edward St. R. R. Co. has been granted a new franchise, which it has accepted, providing for the construction of a new line up South St to 3d st. E. A. Clark, Engr.

STILLWATER, N. Y.—It is reported that the Westinghouse Electric & Mfg. Co. has completed the equipment of the new Stillwater-Mechanicsville St. Ry. The tracks follow the Hudson River from Stillwater, nine miles through Mechanicsville to Waterford, forming a junction with the Troy and Albany lines. The power is obtained from the Hudson River, a dam being located at Stillwater, which gives a 7-ft. head. The water feeds two 250-HP. turbines, each making 500 revolutions a minute. The plant is installed with Westinghouse generators, and the cars all have motors made by the same company.

WEST NEW BRIGHTON (S. I.), N. Y.—The Staten Island Rapid Transit Ry. Co. has been incorporated with $500,000 capital stock, to succeed the Staten Island Rapid Transit R. R. Co. J. Frank Emmons, Jas. M. Davis and Jas. G. Lynch are directors.

GLOUCESTER, N. J.—The council passed an ordinance July 25 granting a franchise through this city to the new Delaware River & Atlantic R. R. Co. The company is permitted to use any other motive power than steam. Col. Z. Y. Boyer is the principal promoter of the project.

TRENTON, N. J.—The Trenton St. Ry. Co., which has been unable to get a franchise to extend its trolley line into Princeton, organized the Mercer County Traction Co. July 31, to build from Lawrenceville to Princeton over private land. The company now has a line as far as Lawrenceville.

TRAPPE, PA.—The Trappe & Limerick Electric St. Ry. Co. was incorporated July 25, with $20,000 capital stock to construct a line in Trappe. Abram K. Hunsicker, Pres., Collegeville, Pa.; E. G. Brownback, Trappe, and S. B. Horning, Lower Providence, Pa., are incorporators.

FREDERICK, MD.—M. Eldridge is reported to have begun surveys on the proposed Frederick, Thurmont & Northern Electric Ry., from Frederick to Emmittsburg, via Rocky Ridge, about 23 miles; estimated cost, $300,-000. L. Victor Baughman, Pres., Frederick.

NEW ORLEANS, LA.—We are informed that work is progressing nicely on the improvements to the New Orleans & Carrollton R. R., comprising the reconstruction of 55,000 ft. of old track and 22,000 ft. of new track. A 100-lb. Am. Soc. C. E. section T-rail is used with 8-ft. creosoted ties, 6 x 8 ins.; rock ballast, 1½-in. ring, 8 ins. in depth; new overhead line, No. .00 trolley; a 1,200-HP. engine, generator and boilers in station No. 2. The company has also bought 70 new cars, single trucks, cross seats, from the American Car Co. J. K. Newman, Pres., New Orleans; Ford, Bacon & Davis, Engrs., 149 Broadway, New York; and London, Liverpool & Globe Bldg., New Orleans.

FINDLAY, O.—Theodore Wenz, Canal Dover, O.; J. W. Kinsey, New Philadelphia, O., and others have been granted a franchise to build an electric railway between this city and Fostoria. Jacob E. Betts, Engr., Findlay.

STEUBENVILLE, O.—The council granted a franchise July 25 to L. E. Sands, H. S. Sands, L. G. Hallock and others of Wheeling, W. Va., to construct and operate a street railway to Mingo. A bond of $10,000 has been deposited. C. C. Smith, Engr., Wheeling.

TOLEDO, O.—We are informed that Riggs & Sherman, The Nasby, Toledo, have been appointed chief engineers of the proposed Toledo, Fremont & Norwalk Electric R. R. to be about 60 miles in length. Construction work is to begin as soon as location has been made.

XENIA, O.—The Xenia & Cedarville Ry. Co. has been incorporated with $50,000 capital stock to construct and operate a street railway between these towns. Clarence P. King, J. W. Neff and J. C. Chumett are incorporators.

LAPORTE, IND.—J. M. Smith, South Bend, Ind., has applied for a franchise to build an electric line from here to Michigan City. A similar franchise is held by Mr. Weeks, Alexandria, Ind.

PORT HURON, MICH.—The Port Huron & Port Austin Electric Ry. Co. was incorporated July 24, with $25,000 capital stock, to construct and operate street railways. M. A. McCarron, Detroit, Mich., and F. T. Sinclair, Port Austin, Mich., are incorporators.

LA SALLE, ILL.—The council has granted a franchise to the La Salle County R. R. Co. to enter this city. Messrs. Rathburn and Barr, Streator, Ill., are interested.

MONMOUTH, ILL.—W. W. McCullough, W. B. Young and S. S. Hallam have petitioned the council for a 20-year franchise to operate an electric street railway in this city.

URBANA, ILL.—The Urbana & Champaign Ry., Gas & Electric Co. has increased its capital stock from $250,-000 to $500,000.

BLACK RIVER FALLS, WIS.—Reports state that the C., B. & Q. R. R. Co. is back of the proposed La Crosse, Black River Falls & Neillsville Electric Ry., arrangements for the construction of which are now being made.

ST. LOUIS, MO.—The Belt Railroad Co. has been incorporated with a capital stock of $1,000,000 by W. S. Fleming, of Webster Grove; T. Wright, C. P. Walbridge, of St. Louis. The road will be about 30 miles long.

SAN BERNARDINO, CAL.—J. J. Hanford, Mayor, informs us that this city contemplates the construction of about 10 or 12 miles of street railway, with cars enough to run a 10-minute service; also that a municipal lighting plant is contemplated, as stated under Electric Light and Power in our last issue. Figures on the above work are requested.

YOKOHOMA, JAPAN.—Koshichi, Tanabe & Co. have recently been organized, with $75,000 capital stock, to build an electric railway in this city. It is reported that bids will be asked about Sept. 30.

ELECTRIC LIGHT AND POWER.

BROOKLYN, N. Y.—Bids are asked until Aug. 8 for a quantity of electrical supplies for the navy yard. A. S. Kenny, Paymaster-Gen., U. S. Navy, Washington, D. C.

ISLIP (L. I.), N. Y.—Bids are asked by W. J. Wheeler, Secy., Islip, for 100 street lights for one, three or five years, as stated in our advertising columns. Eugene R. Smith, Engr., Islip.

NEW CASTLE, PA.—It is reported that this city will soon proceed to make arrangements for the construction of its proposed plant. Jas. A. Gardner, Cy. Solicitor.

PHILADELPHIA, PA.—Charles McCaul has taken out the permit to build a 4-story brick engine house, 97.4 x 155.5 ft., for the Pennsylvania Heat, Light & Power Co., on the east side of Delaware Ave., at Robbins St., Tacony; estimated cost, $60,000.——The Union Traction Co., according to local papers, is about to install four storage battery plants to utilize the excess power during the hours of the day when traffic is light.

WILLIAMSPORT, PA.—Bids are asked until Sept. 1 for lighting the streets with gas, electricity or other light for five years from Dec. 1. Theo. Cornman, Cy. Clk.

HAVRE DE GRACE, MD.—John H. Reckford, Belair, Md., it is stated, wants bids for furnishing the materials and for constructing a plant with a capacity for 50 arc and 2,000 incandescent lights.

COLUMBIA, S. C.—It is reported that the Columbia and Saluda canals, having a total of 23,000-HP., have been purchased from their New England owners by W. B. S. Whaley, of this city, and J. L. Coker, of Darlington, S. C. The price paid is said to approximate $800,000. The Columbia canal now furnishes power for several cotton mills and the street railway and lighting plants.

AUGUSTA, GA.—Nisbet Wingfield, Comr. Pub. Wks., writes us that plans for a municipal plant are being prepared and will be submitted to the council Aug. 7.

ST. AUGUSTINE, FLA.—Press reports state that bids will soon be asked for the purchase of $20,000 of 5% bonds for the proposed plant, which it is proposed to have under construction soon so that it may be built by November. E. E. Bayce, Mayor; P. S. Arnan, Cy. Clk.

HUNTSVILLE, ALA.—The Huntsville Electric Light & Power Co. has sold its plant to the Huntsville Electric Light Co., a corporation formed for the purpose and composed of T. C. DuPont, John H. Waters and N. F. Thompson. The latter company has been consolidated with the Huntsville Ry., Light & Power Co., in order to get the street railway in early operation. The plant will be enlarged and will be used as the power house for the railway. The railway company has purchased three large lots adjoining the electric plant and will build a car barn. The contract for the railway has been let to the Pennsylvania Construction Co.

KNOXVILLE, TENN.—The Knoxville Water & Electric Power Co. was granted a franchise July 26. The company proposes to dam the Holsten River several miles above the city, and supply light and power. The capital is $1,000,000. It is supposed New York men are behind the local representatives.

CYNTHIANA, KY.—Bids are asked until Aug. 8 for 30 2,000 or 1,200-c. p. arc lights for five or ten years. The poles are to be 45 ft. high. L. S. Williams, Cy. Clk. Mayor, writes us that nothing will be done until Aug. 7.

BATAVIA, O.—This place voted July 22 to issue $18,-000 in bonds for a plant and water-works. John Hillen,

CELINA, O.—The question of a municipal plant is being considered.

MONROE, MICH.—The council has voted to ask for bids for a plant to cost $20,000. Address Mayor Rauch.,

TUSCOLA, ILL.—The Culver Electric Co., of Decatur, Ill., has been granted a 20-year franchise and will at once erect a plant to cost about $15,000, according to reports.

VERMONT, ILL.—Bids are asked until Aug. 8 for furnishing the machinery and for constructing the plant. Owen Ford, Consult. Engr., 710 Security Bldg., St. Louis, Mo.; C. S. Alexander, Chn. Com.

ELROY, WIS.—It is reported that Fred Gale, of the Erie Iron Works, Erie, Pa., has secured the contract for furnishing and setting up the machinery for the electric light plant, to cost $9,200. The contract for building will be let soon, the cost to be about $1,000. It is thought that the plant complete will cost the city $15,000.

GRAND RAPIDS, WIS.—The Jackson Milling Co. has been granted a 35-year franchise. The light and power will be secured from the proposed water power plant. Wm. Mainland, Oshkosh; A. M. Sutherland and H. P. Beatty, New York, who are reorganizing the Stevens Point Lighting Co., expect to spend about $50,000 in rebuilding the plant. They have secured an 18-year contract to light the city with 65 arc lamps at $78 a year a light to burn every dark hour during that period. A new water gas plant will be rebuilt to replace the old naphtha concern, and all the mains in the streets will be replaced. The new company is also considering the possibility of changing the location of its plant and putting up a new system of buildings for both electricity and gas.

FREMONT, NEB.—It is proposed to construct a plant and power canal from the Platte River at Linwood to Fremont for power purposes. Andrew Rosewater, Engr., Omaha, Neb.; L. D. Richards and R. D. Kelly, Editor Fremont "Leader," are interested.

HUMBOLDT, MO.—It is stated that 80 electric lights are soon to be installed.

HELENA, ARK.—The plant of the Helena Electric Light & Power Co. was destroyed by an explosion and a fire on July 22, the loss being about $25,000. A new plant will be built at once, it is stated. E. C. Horner, Gen. Mgr.

DENVER, COLO.—Press reports state that an English syndicate has agreed to provide the funds, more than $3,-000,000, for constructing a dam, reservoir and power house on the Platte River, 30 miles from Denver, the object being to generate by water power electricity sufficient to supply all the needs of Omaha for lighting, heating and power purposes.——The Park Board proposes to build a plant, at a cost of about $5,000, to utilize the water power of the lake in City Park.

REDWOOD CITY, CAL.—Bids are asked until Aug. 21 for the purchase of $4,185 of 5½% bonds for improving the plant. D. R. Strafford, Cy. Clk.

LINDSAY, ONT.—The Lindsay Light, Heat & Power Co. will proceed immediately with the construction of its plant at Fenelon Falls, on the line of the Trent Valley Canal, and will develop for about 1,000 HP., and transmit 14 miles to this place. C. H. Mitchell, Hydraulic Engr., Niagara Falls, Ont., is in charge.

NIAGARA FALLS, ONT.—Reports state that an agreement between the commissioners of the Queen Victoria Park and the Canadian Niagara Power Co. has been made. This is the agreement authorized by an act of parliament passed in March, and extends the time of the Canadian Niagara Power Co., within which 1,000 HP. must be developed in the Canadian Park to July 1, 1903. The franchise is for 110 years, and the rent has been reduced to $15,000 a year. There are other amendments in regard to the location of the plant and power house, all the plans for which have now been approved. The company on its part has yielded its exclusive right to the use of waters within the Canadian Park, and the commissioners are at liberty to deal with other companies for the development of power outside the territory occupied by the Canadian Niagara Power Co. Wm. B. Rankine, Secy.

PICTON, ONT.—This place is reported to have voted to issue $15,000 in bonds for a plant.

LONDON, ENGLAND.—Bids are asked until Aug. 31 for the materials for a plant to light the parish of St. Mary, Battersea, including overhead electric crane. A deposit of £3 3s. is required for plans. Prof. A. B. W. Kennedy, Engr., 17 Victoria St., Westminster, London; Marcus Wilkins, Vestry Clk., Municipal Bldgs.

BRIDGES.

BOSTON, MASS.—Bids are asked until Aug. 10 by the Boston Transit Commission, 20 Beacon St., for building extension of fender pier, Charlestown bridge. B. Leighton Beal, Secy.——It is reported that the bridge known as Malden Bridge will be replaced by a new one.

DAYVILLE, MASS.—Reports state that the railroad commission has filed its decision, which requires that the People's Tramway Co. shall build a bridge across the tracks of the Norwich & Worcester R. R. Co., at Dayville; dimensions: length, 99 ft. 6 ins.; width, 12 ft.

TAUNTON, MASS.—Local papers state that the East Taunton St. Ry. Co. has decided to build an iron trestle over the steam railway instead of crossing the tracks of the Consolidated Road at grade near Chase's Station, as was previously stated.

DANIELSON, CONN.—The citizens has petitioned the selectmen for a new bridge in place of one which recently collapsed.

MADISON, CONN.—It is stated that the town will construct a new bridge at what is known as Duck Hole, just over the Clinton line.

PUTNAM, CONN.—At a special town meeting it was voted that the selectmen be authorized to build a new iron bridge over the stream that crosses the Mechanicsville road, cost not to exceed $16,000.

BALDWINSVILLE, N. Y.—The town board has decided to build a steel bridge across the Seneca River. Engineer Marscher has recommended that a bridge be built 48 ft. wide by 260 ft. long, with a roadway 38 ft. wide, and two walks 9 ft. wide each; estimated cost, $32,000.

ROCHESTER, N. Y.—Local reports state that the park commission has received the report of the Seneca Park committee, recommending that permission for the construction of approaches to the proposed bridge across the lower river be granted.

SCHENECTADY, N. Y.—The question of the advisability of bridging the Mohawk River between Hoffman's and Pattersonville is being considered, as stated in local papers.

JERSEY CITY, N. J.—We are informed by David Young, Vice-Pres. North Jersey St. Ry. Co., that the company will not build a new bridge across the Newark & New York R. R. cut at Jackson Ave., as recently stated, but will simply strengthen the present one.

FRANKFORD, PA.—The contract for the construction of a new bridge in place of the one now over the Frankford Creek at Orthodox St., has been awarded to the John Baizley Iron Co., at $4,000.

IRWIN, PA.—It is stated that the council will confer with railway officials for a bridge across Oak St.

MIDDLETOWN, PA.—J. W. Swartz, Chn. Comrs., writes us that bids are asked by the commissioners for a bridge with one span 53 ft., 16 ft. wide; capacity, 100 lbs. per sq. ft., of stone foundation with iron and steel joist, at Bannerville.

PHILADELPHIA, PA.—Local papers state that a bridge is proposed across the tracks of the Pennsylvania and Philadelphia & Reading railroads at Thompson St.

WILKES-BARRE, PA.—Bids are asked until Aug. 7 for the erection of a stone bridge on West Orchard St. R. R. Van Horn, Secy., Eley House Block.

MONTGOMERY, ALA.—The Tallapoosa Bridge Co. has been incorporated for the purpose of erecting a toll bridge across the Tallapoosa River.

DICKSON, TENN.—C. M. Lord, Mayor, writes us that the town has voted against the bond issue for a bridge.

NASHVILLE, TENN.—The Smith county justices have voted to build a passenger bridge across the Cumberland River at Carthage.

CHILLICOTHE, O.—Bids are asked until Aug. 14 by the commissioners of Ross county for the substructure and superstructure of two spans, one 90 ft. and one 80 ft. A. W. Jones, County Engr.

COLUMBUS, O.—Bids are asked until Aug. 23 for reflooring of the Broad St. bridge over the Scioto River; estimated quantity of lumber is 76,500 ft. W. H. Halliday, County Audr. and Clk. Bd. County Comrs.

COLUMBUS, O.—It is stated that the county commissioners have decided to erect a bridge over the Big Four and Panhandle tracks on the Harper road.

NORWALK, O.—The following bids were received by the council for the stone work on Linwood Ave. viaduct: Fred. Schumer, Norwalk, $2,656; Morse, Mayer, Williams & Tubman, Cleveland, $3,301; G. S. Stewart, Norwalk, $3,350; G. A. Craig, Toledo, $3,531; F. M. Townsend, Zanesville, $3,238.

BATTLE CREEK, MICH.—Bids are asked until Aug. 7 for the construction of a stone or steel bridge across the Kalamazoo River, as stated in our advertising columns. Address City Engineer.

SAULT STE. MARIE, MICH.—It is stated that Mayor Keliher is in favor of appointing C. F. Loweth, St. Paul, Minn., as consulting engineer on the city's proposed permanent bridges over the water-power canal.

INDIANAPOLIS, IND.—The question of constructing some new bridges will be discussed by the board of public works and the city council. An ordinance appropriating $150,000 for the construction of bridges is now pending in the council.——The county commissioners have let two bridge contracts, one to the Wrought Iron Bridge Co. for the superstructure over Lick Creek on the Shelbyville road, at $1,571, and the other to Wm. Fife for the stonework, at $7.65 a cu. yd.

CHICAGO, ILL.—Bids are asked until Sept. 20 by the board of trustees of the sanitary district for the construction of the superstructure for the tow-path bridge on the line of the Illinois and Michigan canal at Joliet, as stated in our advertising columns. Wm. Boldenwreck, Pres. Bd. Trustees; Jos. F. Haas, Clk.——H. C. Draper, Ch. Engr. Chicago & Alton R. R., writes us that he has asked for bids for the construction of three new piers for the company's bridge over the Missouri River at Glasgow, Mo.

DANVILLE, ILL.—A. C. Braucher writes us that a bridge will be erected across the Vermilion River for the purpose of bringing the Cairo Division trains into the city over the Peoria Division tracks.

ST. PAUL, MINN.—Bids are asked until Aug. 15 for the construction of the superstructure of the Wabasha St. bridge. Matt. Jensen, Cy. Clk.

NORTH REDWOOD, MINN.—The Clinton Bridge & Iron Works, Clinton, Ia., is reported to have been awarded the contract for the construction of a steel bridge across the Minnesota River.

COUNCIL BLUFFS, IA.—Local papers state that Mayor Jennings has issued a call for a special meeting of the council for the purpose of taking action in the matter of the resolution granting the Union Pacific R. R. Co. permission to erect a new bridge over Indian Creek at Fifth and Union Aves.

ASHLAND, NEB.— It is stated that at an election held July 24 it was voted to bond the city for $6,000 for the construction of a bridge; bridge to be located below the B. & M. railroad bridge, making a span of 1,900 ft.

ANDERSON, TEX.—Bids are asked until Aug. 14 for the construction of an iron bridge across the Navasata River. G. B. Wiles, Engr., Houston; J. H. Teague, County Judge.

TRINIDAD, COLO.—Bids are asked until Aug. 7 for the construction of a bridge across the Apishapa River, about one-half a mile east of Aguilar; bridge to be a turbular or gas pipe bridge of 40-ft. span and 4-ft. roadway, with wooden aprons to each end of bridge of 14 ft. length. The foundation to be four steel cylinders of 2 ft. diameter and 14 ft. in length. J. F. Ramey, County Surveyor.

COLFAX, WASH.—Bids are asked by the commissioners of Whitman county until Aug. 9 for the construction of a bridge across the Palouse River, to be of combination span, 115 ft. in length; roadway, 18 ft. in width. John F Corner, Audr. of County.

LOS ANGELES, CAL.—Bids are asked by the city clerk until Aug. 7 for the construction of a bridge at Ninth St., estimated cost, $7,000; also for the Los Feliz and Arroyo Seco bridges, cost estimated at $8,000 and $5,500, respectively.

MODESTO, CAL.—We are informed that the joint commission from the supervisors of San Joaquin and Stanislaus counties has let the contract for repairing the Ripon county bridge to Lewis Snyder, at $1,400.

VISALIA, CAL.—Bids are asked by the board of supervisors for the construction of a bridge across the Tule River, six miles east of Porterville.

BUILDINGS.

MILLINOCKETT, ME.—The Great Northern Paper Co. announces that it desires to make special arrangements with parties ready to erect 100 tenement houses at this place for the company's employees, and also a suitable hotel and boarding house. Address Chas. W. Mullen, Bangor, Me., or Millinockett.

PORTLAND, ME.—F. H. Fassett, 93 Exchange St., has been instructed to prepare plans for remodeling the present school building, and F. A. Thompson, 122½ Exchange St., to prepare plans for a new 8-room building. An appropriation of $15,000 has been made.

TILTON, N. H.—Plans have been accepted for a new 6-room brick and stone school building, 123 x 48 ft.,

ABINGTON, MASS.—Plans have been completed for a large addition to the high school building at this place.

CHICOPEE FALLS, MASS.—The following bids have been received for erecting the new school building at this place: D. G. Canty, $16,285; D. B. Griggs & Sons, $17,400; Beston & Kelly, $16,875. As the figures exceeded the appropriation, the contract will be let on revised plans, probably about Aug. 15.

EVERETT, MASS.—The aldermen have passed an ordinance appropriating $50,000 for the construction of a 12-room school building on Lexington St.

WORCESTER, MASS.—The following bids were received July 25 for erecting the new Grafton St. school building: George Kingston, $37,578; Urgel Jacques, $37,973; Eli Belisle, $38,967; Rankin & Woodside, $40,445; J. Edward Fuller, $40,987; Henry Mellen & Son, $41,000; Webb Granite & Construction Co., $41,850; W. A. Beaudette, $42,000; J. J. Higgins, $42,658; Thomas Barrett, $44,241.

HARTFORD, CONN.—Bids are asked until Aug. 10 for erecting two engine houses in this city. George Ulrich, Chn. Bldg. Com.; F. R. Comstock, Arch., 252 Asylum St.

BROOKLYN, N. Y.—Bids are asked by the bureau of yards and docks, Washington, D. C., until Aug. 12, for constructing a machine, copper and erecting shops, boiler house and chimney, latrine and attached buildings, etc., for steam engineering purposes at the navy yard at this place. M. T. Endicott, Ch. of Bureau.——Craigen & Son, Flatbush, N. Y., are reported to have received the contract for erecting a new school building on the property of the Church of the Holy Cross, to cost about $42,340.

NEWARK, N. Y.—Bids are asked until Aug. 7 by the managers of the State Custodial Asylum at Newark for erecting a cottage dormitory, and a conduit from the new boiler house to connect with the main buildings on the asylum grounds. E. K. Burnham, Treas., Newark; G. L. Heins, State Arch., Albany, N. Y.

NEW YORK, N. Y.—Plans have been filed by Walter Fox, 258 Broadway, for fifteen 3-story brick and stone dwellings on Convent Ave., near 141st St., to cost about $210,000. Henri Fouchaux, Arch., Broadway and 162d St.; by J. C. Burne, Owner and Arch., 102 West 42d St., for a 7-story brick flat building on the Western Boulevard, near 99th St., to cost $75,000; by J. J. McCaffrey, 33 East 19th St., for a 6-story brick and stone flat building on 33d St., near 8th Ave., to cost $90,000. J. C. Burne, Arch.; by Jerry Altieri, for eight 6-story brick flat buildings on 112th St., near 1st Ave., to cost $224,000. Geo. F. Pelham, Arch., 503 5th Ave.; by Morris Mandelstein, 355 Pleasant Ave., for two 7-story brick and stone apartment buildings at Madison Ave. and 97th St., to cost $165,000. Thomas Graham, Arch.; by Patrick McMorrow, 63 East 93d St., for a 7-story brick flat building at Central Park West and 107th St., to cost $150,000. Neville & Bagge, Archs., 217 West 125th St.; by William Noble & Co., 307 Madison Ave., for two 8-story brick and stone flat buildings at Broadway and 108th St., to cost $800,000. Joseph Wolf, Arch., 1125 Broadway.

TUPPER LAKE, N. Y.—Most of the buildings in this village were destroyed by fire July 30; reported loss, $200,000.

ERIE, PA.—Bids are asked until Aug. 21 for the removal of school building No. 2, at 7th and Holland Sts., and for erecting a 10-room school building, to cost about $32,000. A. W. Walker, Chn. Com.

PHILADELPHIA, PA.—Preliminary plans are being prepared for a new steel frame church building to be erected for the Wylie-Chambers Memorial Church, at Broad and Samson Sts., to cost about $250,000.——Bids are being received by Wilson R. Kerr, Arch. and Contractor, 1226 South 58th St., for the materials for a 3-story brick and stone dwelling to be erected at Ashland and Thomas Aves.; estimated cost, $182,000.

WASHINGTON, D. C.—The plans of George B. Post, Warren & Wetmore and Price & Aiken, all of New York, for the new department of justice building to be erected in Washington, at a cost of about $1,000,000, have been selected by the Attorney-General for further consideration.——James L. Parsons is reported to have been awarded the contract for constructing a building for M. G. Emery, which will be occupied by the census bureau on Jan. 1; estimated cost, $104,000.

AUGUSTA, GA.—J. H. McKenzie & Son, Augusta, have been awarded the contract for erecting the proposed King Building, at $32,980. The other bidders were: Daly & Hayes, $33,882; T. O. Brown, $33,900; Charles F. Rounds, $34,858; A. J. Stanford, $38,440.——T. O. Brown has been awarded the contract for erecting the proposed Phinizy Building in this city, at $28,925.

CHATTANOOGA, TENN.—W. H. Armstrong is reported to have been awarded the contract for erecting a 2-story store and office building at Market and Union Sts., for the Boyce heirs. R. H. Hunt, Arch., 8 Keystone Block.

MEMPHIS, TENN.—Plans have been completed, according to reports, for a 5-story business building to be erected at Main and West Court Sts. for Edward Hunter & Co., to cost about $75,000.

COLUMBUS, O.—It is reported that a 5-story apartment building will be erected at Goodale and Armstrong Sts., by John McAuley, to cost about $50,000.

LAKEWOOD, O.—Bids are asked by the Rockport separate school district of Cuyahoga county until Aug. 12 for erecting two 2-story, 4-room school buildings in that district. Address J. C. Andrews, Clk., Lakewood.

MADISONBURG, O.—Bids are asked by the board of education of Wayne township, Wayne county, until Aug. 17, for building an addition to the present school building.

EVANSVILLE, IND.—Bids are asked until Aug. 14 for erecting an assembly hall at the Southen Indiana Hospital for the Insane at this place. G. C. Mason, Supt.; Harris & Shopbell, Archs.

PORTLAND, IND.—The commissioners of Jay county have awarded the contract for building the new jail building to Lalley & Jaqua, Portland, at $29,000.

GRAND MARAIS, MICH.—Bids are asked by the U. S. life-saving service, Washington, D. C., until Aug. 16, for constructing a life-saving station at this place. S. I. Kimball, Gen. Supt.

CHICAGO, ILL.—Plans have been completed by L. M. Mitchell, 145 La Salle St., for a 3-story apartment building to be erected for B. F. George at Calumet Ave. and 59th St., to cost about $60,000.

DANVILLE, ILL.—Bids are asked until Aug. 16 for a heating and ventilating apparatus, plumbing, electric lighting, refrigerating rooms, elevators, etc., in the commissary building at the Danville branch of the National Home for Disabled Volunteer Soldiers. Wm. C. Gunnell, Engr., Danville.

FREEPORT, ILL.—The contract for erecting the new Lincoln Ave. school building is reported to have been let to Smith & Thomas, Freeport, at $20,975, and the contract for heating and plumbing to M. L. Parker, Freeport, at $5,700.

OAKPARK, ILL.—The Presbyterian Church of Oakpark has accepted plans for a new church building, 79 x 101 ft., to be erected at this place.

DES MOINES, IA.—Contracts have been awarded by the Chicago Great Western Ry. Co. to James T. Brady, St. Paul, Minn., for the erection of buildings valued at $90,000 along the St. Paul and Kansas City divisions. The principal improvements will be a 16-stall addition to the roundhouse at Oelwein and some smaller buildings for the storekeeper and the machine shops at that point, an 8-stall addition to the roundhouse in this city and a new 8-stall roundhouse in St. Joe. H. Fernstrom, Ch. Engr., St. Paul, Minn.

PAULLINA, IA.—Bids are asked until Aug. 21 for erecting a school building in this city. Stephen Harris, Secy.; W. R. Parsons & Son Co., Arch., Des Moines, Ia.

MINNEAPOLIS, MINN.—Bids are asked until Aug. 15 for alterations to the heating and ventilating apparatus of the U. S. building in this city. James Knox Taylor, Supervising Arch., Washington, D. C.——Plans have been prepared for the new East Side high school building, 155 x 178 ft., to cost about $75,000. E. S. Stebbins, Arch.

AUBURN, NEB.—Bids are asked until Aug. 30 for erecting a court house for Nemaha county. J. W. Wright, County Clk.; Geo. Berlinghof, Arch., Auburn.

LAKOTA, N. DAK.—Bids are asked until Sept. 2 for erecting an A. O. U. W. hall building at Lakota. J. W. Ross, Arch., Grand Forks, N. Dak.

NEW ROCKFORD, N. DAK.—Bids are asked until Aug. 7 for erecting a new court house for Eddy county in New Rockford, and for steam heating of the same. James Hackney, County, Audr.; M. E. Beebe, Arch., Fargo.

TOPEKA, KAN.—Bids are asked until Aug. 7 for erecting the new Branner school building in this city. H. W. Farnsworth, Clk. Bd.; J. C. Holland & Co., Archs.

BLOOMFIELD, MO.—Bids are asked until Aug. 8 for erecting a 3-story school building. Ralph Wammack, Pres. School Bd.

FREDERICKTOWN, MO.—A special election will be held in Madison county Sept. 5 to vote upon the proposition of erecting a new $10,000 court house on the site of the present building. W. H. Farrar, County Clk.

MARSHALL, TEX.—Bids are asked until Aug. 16 for erecting a 3-story fireproof court house for Harrison county at Marshall; deposit, $2,500. H. T. Lyttleton, County Judge; C. G. Lancaster, Arch., Marshall.

CHEYENNE, WYO.—The following bids were received by the supervising architect, Washington, D. C., July 28, for the superstructure, interior finish, plumbing, approaches, etc., for the U. S. building at Cheyenne. (A) using limestone with granite:

		(A).	Time, mos.
L. L. Leach & Son, Chicago.....	$233,000	$230,000	12
Jas. K. Barry, Denver	248,000	.....	18
G. W. Atkinson & Sons*.....	185,800	196,000	12
Keefe & Bradley, Cheyenne.....	236,631	246,631	18

*Colorado Springs.

DENVER, COLO.—We are informed that the following bids were received July 15 for work on the new Colorado State Capitol, as advertised in Engineering News: Herman Lueders, Secy. Bd. of Capitol Mgrs.; (1) for iron stairs from second to third story; (2) ten bronze metal door frames; (3) bronze metal grilles, caps, rails: Hecla Iron Works, Brooklyn, N. Y., (1) $5,500, (2) $16,000, (3) $32,500; Chicago Ornamental Iron Co., Chicago, (1) $5,150, (2) $12,300, (3) $19,285; Denver Tire & Iron Works Co., Denver, (1) $5,600, (2) $7,400, (3) $11,550; L. Schreiber & Sons Co., Cincinnati, O., (1) $4,362, (2) $10,041, (3) $22,714; Patterson & Roney, Denver (accepted), (1) $4,395; (2) $11,627, (3) $14,495; Snead & Co. Iron Works, Louisville, Ky., (1) $4,980, (2) $13,781, (3) $21,200; Paul Richter, Denver, (1) $3,621. The contract for constructing the steps and risers of the grand stairway was awarded to the Denver Onyx & Marble Co., Denver, under a former contract, using Italian marble, at $2,096; the contract for panel work was let to Fred. P. Bagley & Co., Chicago, at $4,000, and also the contract for wainscoating for four stairways, at $3,800, and the treads and risers for four stairways, second to third floor, at $925. The bids for completing the plain and ornamental plastering were received from the following local bidders: James Jackson, $3,980; Smith & McCallin, $3,349; James Cooney, $2,700; Syman & Walker (accepted), $2,449. For vitreous tile floor in libraries: Fred. P. Bagley & Co., Chicago, $3,700; Denver Onyx & Marble Co., Denver, $2,775; T. W. Cook & Co., Denver (accepted), $2,662. For 16 circular glass windows, with portraits of Colorado pioneers: James W. Baker, Denver, $2,400; The Flanagan & Biedenweg Co., Chicago, $1,800; The Copeland Glass Co., Denver (accepted), $1,600; Healy & Millet, Chicago, $1,200.

BUTTE, MONT.—Thomas Rowan has been awarded the contract for erecting a new school building on Aluminum St., at $21,283, exclusive of heating and ventilating plant.

SAN FRANCISCO, CAL.—Bids are asked by the bureau of navigation, Washington, D. C., until Aug. 30, for constructing a building for officers' quarters for the U. S. naval training station on Yerba Buena Island, San Francisco.

BOISE, IDAHO.—Bids are asked by the supervising architect, Washington, D. C., until Aug. 28, extended from Aug. 7, for the construction (except heating apparatus, elevator, electre wiring and conduits) of the U. S. building at Boise.

SACKVILLE, N. B.—Bids are asked until Aug. 7 for erecting a brick or stone university residence. Address D. Allison.

ST. JOHN, N. B.—Bids are asked until Aug. 5 for heating and ventilating the General Public Hospital in this city. I. Olive Thomas, Secy.

KINKORA, P. E. I.—Bids are asked until Aug. 12 for constructing a new Roman Catholic church building at this place. J. J. McDonald.

WORKINGTON, ENGLAND.—Competitive designs are asked until Sept. 1 for a town hall to be erected in Oxford St. by adding to the present Field House. Premiums, £40 ($200), £20 and £10. W. L. Eaglesfield, Borough Surveyor.

WATER-WORKS.

PLYMOUTH, MASS.—R. W. Bagnall, Supt., writes us that the town expects to lay 12,500 ft. of 4 to 12-in. pipe, set 35 hydrants and 85 gates, etc.; estimated cost, $30,789.

NEW HAVEN, CONN.—Local papers state that the New Haven Water Co. is arranging to spend about $70,000 in improvements. At the pumping station new machinery, valued at $20,000, will be installed. The company also proposes to build a tunnel 6 ft. in diameter to connect Farm River with Lake Saltonstall, at a cost of about $40,000. Eli Whitney, Pres.

BUFFALO, N. Y.—Bids are asked until Aug. 11 for furnishing 3 to 48-in. cast-iron water pipe, with necessary castings, valves, hydrants, meters, valve boxes, cocks, etc., and for hauling the same. R. G. Parsons, Secy. Bd.

CANAJOHARIE, N. Y.—H. A. Snortfiguer, Pres., writes us that an election will probably be held in September to vote on the question of issuing bonds for works and sewers. Estimated cost of works, $10,000. Population, 2,500.

CANANDAIGUA, N. Y.—Thos. Johnson, Supt., writes us that it is expected to vote on the proposition to issue about $10,000 in bonds about Sept. 1, to purchase two 75-HP. engines and two 75-HP. boilers and to make additions to the pumping station.

CORFU, N. Y.—The proposed works will cost about $9,000, with steel standpipe, 75 x 12 ft., cost $3,300.

COXSACKIE, N. Y.—This place voted July 18 to build an additional reservoir and pipe lines at a cost of $6,000. It is said that the commissioners will not let a contract. J. H. Van Gelder, Engr., Catskill, N. Y.

DANSVILLE, N. Y.—M. J. McNeil, Supt., writes us that an extension requiring about three miles of 8-in. pipe and necessary valves will be built next spring; estimated cost, $8,000.

SPANGLER, PA.—It is stated that the Spangler Water Co. has let the contract for building a dam and laying 4,500 ft. of 8-in. pipe to F. H. Clement & Co., Bellefonte, Pa., at about $15,000. The water company will also lay about 10,000 ft. of pipe to supply Barnesboro.

BELLEVUE, PA.—Plans for works, it is stated, will be prepared at once; estimated cost, $40,000.

ELMIRA, N. Y.—Wm. R. Hill, Ch. Engr. and Supt. Water Dept., Syracuse, N. Y., has been engaged by the city to make an estimate of the value of the works of the Elmira Water-Works Co.

FREEPORT, PA.—S. F. Clark, Burgess, writes us that the town is negotiating for the purchase of the works of the Freeport Water-Works Co., and it is hoped to soon close the deal. If the town does not buy some measures will be taken to build works.

HONESDALE, PA.—The Wayne Citizens' Water Co. has been incorporated, with a capital stock of $30,000, of which $3,000 was paid in. Thos. Midland, Treas.

PHILADELPHIA, PA.—Bids are asked until noon, Aug. 9, for furnishing the following: Intake, an engine and boiler house, pump chambers and valves, two boilers, two 5-million gallon pumps, all for Roxborough pumping station; two 3-million gallon pumps, three boilers, a standpipe, an engine and boiler house, all for Frankford high-service station; pump chambers and valves, relocating suction mains, for Queen Lane pumping station; one 5-million gallon pump, Roxborough high service station; one 5-million gallon pump, Belmont high service station; 36-in. and 48-in. iron water pipe, re-tiring wagon and cart wheels, excavating pipe trenches, engine and cylinder oil, cast-iron stop boxes. Wm. C. Haddock, Dir. Pub. Wks.

STROUDSBURG, PA.—The Lehigh Valley Water Supply Co. has been incorporated, with a capital stock of $1,000, by E. Troxell, Wilkes-Barre; W. S. Tompkins, West Pittston; H. W. Sweeney, Drifton, Pa.

WAYNESBURG, PA.—The works of the Waynesburg Water Co., owned by McCullough, Deibere & Poller, of Kittanning, Pa., has been sold to J. B. F. Rinehart and C. H. Bowlby, of Waynesburg, who will renew the machinery, repair and improve the plant.

GEORGETOWN, DEL.—This place has voted to put in works.

WOODSTOCK, VA.—D. G. Adelsberger, Engr., 722 Pennsylvania Ave., Baltimore, Md., writes us that the plans and specifications for the proposed gravity works are not yet prepared. Population, 1,800.

MONROE, N. C.—Moore & McCrary, Atlanta, Ga., have been awarded the contract for the proposed works and electric plant, at $23,450.

JACKSON, GA.—The committee to consider the matter of works to cost $25,000, and to call an election to vote on the question consists of Wm. M. Mallet, L. J. Ball, Y. A. Wright and Parry Lee.

ST. PETERSBURG, FLA.—Guild & Co., Chattanooga, Tenn., have been awarded the contract for constructing the works at $8,900.

BESSEMER, ALA.—The works owned by the Bessemer Land & Improvement Co. has been sold to the American Water-Works & Guarantee Co., Pittsburg, Pa., for $100,000, according to reports.

COLUMBUS, MISS.—The council is reported to have let the following contracts for works and a sewerage system: Guild & Co., Chattanooga, Tenn., the pump house and furnishing and setting the pumps, boilers and hydrants; the United States Cast Iron Pipe Co., for furnishing the water pipes; New York Filter Co., of New York, the filter; Howard Neeley, Nashville, laying sewer pipe.

LANCASTER, KY.—J. C. Thompson, Chn. Com., writes us that the franchise for works has been let to E. P. Moritz, of the Moritz-Burwick Construction Co., of St. Louis, Mo. The franchise calls for 50 fire plugs, standpipe, pumps, filtering plant, seven miles of pipe, etc. The water supply will be secured from the Dix River, 2½ miles distant.

BATAVIA, O.—This place has voted to issue $18,000 in bonds for works and an electric plant. John Hillen, Mayor, writes us that nothing more will be done in regard to the matter until Aug. 7, when the bonds will be issued.

LAPORTE, IND.—The proposition of W. H. Wheeler & Co., Beloit, Wis., for putting in a pipe line five miles long, from the Little Kankakee River, and a pumping station, for $97,850, has been accepted.

BAY CITY, MICH.—The contract for a 5,000,000-gallon pump has been let to the Holly Mfg. Co.

GRAND RAPIDS, MICH.—It is proposed to lay water mains in certain streets at a cost of about $32,000. O. N. Watson, Chn. Com.

ROCKLAND, MICH.—The question of putting in works and a sewerage system is being considered.

SAGINAW, MICH.—Bids are asked until 3.30 p. m., Aug. 4, for hydrants, valves and special castings. Alfred Davies, Clk. Bd. Pub. Wks.

CARBONDALE, ILL.—J. J. Mainesworth is preparing plans for works.

DANVILLE, ILL.—Geo. C. Morgan, Royal Insurance Bldg., Chicago, is reported to have been engaged to make surveys for works to cost about $100,000. R. E. Lloyd, Cy. Clk.

OTTAWA, ILL.—The committee has recommended that improvements be made to the pumps and the works at a cost of about $8,000. J. H. Gilman, Chn. Com.

ADA, MINN.—This place recently voted to issue $6,000 in bonds for works. F. M. Calkins, Recdr.

CANBY, MINN.—Bids are asked until Aug. 7 for a 60,000-gallon pine tank and an 80-ft. steel tower and stone foundation. C. Anderson, Pres. Council; A. M. Hayes, Engr., Mankato, Minn.

SLAYTON, MINN.—Bids are asked until Aug. 7 for sinking a 10-in. well for a water supply. P. H. Whitney, Village Recdr.

ARAPAHOE, NEB.—The question of putting in works and an electric plant is being considered. E. N. Allen, J. W. Tomblin and W. I. McKenna are on the committee.

MAPLEWOOD, MO.—A company has been organized with a capital stock of $25,000 to put in works.

ST. CHARLES, MO.—Hiram Phillips, Oriel Bldg., St. Louis, is reported as preparing plans for works. H. C. Sandford, Clk.

NEWPORT, ARK.—Press reports state that it is proposed to issue bonds for city works, an electric plant and a sewerage system. Population (1890), 1,571.

MARIANNA, ARK.—Peter Brickey, Chn.Com., writes us that the following bids were received July 25 for constructing works: Phillip H. Porter, Forrest City, Ark., and Louisville, Ky., $20,135; G. Jager, Richhill, Mo., $19,840; P. A. Rees, Fayetteville, Ark., $19,715 (accepted). The works will consist of 15,600 ft. of 4, 6 and 8-in. pipe, ditching through sandy and clay soil, but no gravel or rock; a 54 x 16-in. boiler, two Worthington pumps, 100-ft. tower with a 60,000-gallon tank, air compressor, etc.

NEVADAVILLE, COLO.—This place voted July 22 to issue $20,000 in bonds for gravity works. A. C. Bourk, Mayor, Post Office, Bald Mountain, Colo.

HEALDSBURG, CAL.—Bids were received July 31 for constructing works and an electric plant. C. H. Pond, Clk.

WILLIAMS, ARIZ.—It is proposed to secure an increased water supply.

PICTOU, N. S.—The council, it is stated, wishes to correspond with contractors putting in works. Estimates for works were made a few years ago showing that it would cost about $60,000 for a supply from artesian wells and $120,000 for gravity works. Population (1898), 3,000. Address J. J. McKay, of the committee, or A. J. Craig, Mayor.

SHAWVILLE, QUE.—Robt. Surtees, Ottawa, Ont., is reported to have submitted estimates for works to cost $11,000 and for an electric plant to cost $4,000.

ST. MARY'S, ONT.—This place voted July 24 to issue $40,000 in bonds for works and a sewerage system. Sam'l M. Gray, Engr., Providence, R. I.; T. D. Stanley is on the committee.

BRIDGEBURG, ONT.—This place proposes to build works, according to reports.

LONDON, ONT.—The council received bids July 29 for rebuilding the Springbank dam and for making other improvements to the works, at a cost of about $50,000. Councilman Jones, Chn. Com.; J. M. Moore, Supt.

OTTAWA, ONT.—Bids are asked until Aug. 8 for the pump house extension. John Galt, Cy. Engr.; J. C. Roger, Chn. Com.

WINNIPEG, MAN.—H. N. Ruttan, Cy. Engr., informs us that the following bids were received July 3 for a water softening plant: Pittsburg Testing Laboratory, Pittsburg, Pa., $14,881 (accepted), and $16,785; We Fu Go Co., Cincinnati, O., $39,580; O. N. Jewell Filtration Co., Chicago, $30,000 f. o. b. Chicago; Canadian Locomotive & Engine Co., Ltd., Kingston, Ont., $77,500.

ROSSLAND, B. C.—The council has decided to accept the bid of the West Kootenay Power & Light Co. to sell to the city the works owned by the Rossland Water & Light Co. for $40,000.

KIDDERMINSTER, WORCESTER, ENG.—Bids are asked until Sept. 5 for the delivery and erection of a compound engine and pumps (at the lower pumping station), capable of raising 120,000 gallons of water per hour to a height of 180 ft.; also for a steel shell lining to a well, 45 ft. x 8 ft. diameter. Arthur Comber, Borough Engr.

EAST ASHFORD, KENT, ENG.—Bids are asked until Aug. 28 for the following work for a water supply for Willesboro, Kent: Rising main and service mains, with necessary sluice valves, hydrants, etc.; excavating and laying of the mains, fixing hydrants, sluice valves, etc., including the carriage from the Ashford station of the South Eastern Ry.; erection of engines and pumps in duplicate; sinking a well and adits, and the construction of a reservoir, and building a small pumping station and cottage, with sundry other works. Specifications, etc., can be obtained by a deposit of £3 3s., which will be returned. Bailey-Denton, Son & Lawford, Engrs., Palace Chambers, 9 Bridge St., Westminster, London. Horace Hamilton, Clk.

SEWERAGE.

FAIRHAVEN, MASS.—It is proposed to spend $10,000 for improving the system.

HYDE PARK, MASS.—The commissioners received the following bids July 15 for constructing about 2½ miles of sewers: Page St., section 5—F. L. Allen, Worcester, $15,705; Patrick H. Rooney, Hyde Park, $15,286 (accepted); C. E. Trumbull & Co., Boston, $15,676; H. A. Hanscom & Co., Boston, $15,932; M. Russo & Co., Boston, $18,541; Long & Little, Leominster, $16,022. Hyde Park Ave.—F. L. Allen, $17,161; H. A. Hanscom & Co., $19,461; M. Russo & Co., $20,255; Long & Little, $16,821 (accepted).

SOUTHBRIDGE, MASS.—The following bids were received July 24 for constructing a sewer: Allen & Co., Worcester, $11,500; J. J. Bowlen & Co., Southbridge, $13,665; Carberry & Co., Walpole, $9,929; Geo. W. Cram, Norwalk, Conn., $12,724; Chas. Migneault, Spencer, $16,877; Baker & Judson, $9,124; Trumbull & Co., $12,114.

PUTNAM, CONN.—Lucian A. Taylor, Worcester, Mass., has submitted a report on a system for this place.

CANAJOHARIE, N. Y.—H. A. Suortñguer, Pres., writes us that it will be necessary to call an election in September to vote on the question of building a system and water-works. Population, 2,500. F. E. Crane and Morrell Vrooman, Engrs.

FISHKILL-ON-THE-HUDSON, N. Y.—D. S. Merritt, Carmel, N. Y., has submitted plans for a system, according to reports.

MASSENA, N. Y.—It is proposed to build a system, according to reports.

MOUNT VERNON, N. Y.—Bids are asked by the commissioner of public works until Aug. 15 for the waterproofing of a sewage receiving tank, as stated in our advertising columns.

WHITE PLAINS, N. Y.—Bids are asked by the board of trustees until Aug. 7 for constructing sewers in Warren St.

HOBOKEN, N. J.—Local papers state that the town council of West New York is likely to build a sewer. The council has rejected an offer to drain into the proposed joint sewer, at a cost of about $54,000. Address Mayor Otis or W. H. Schmidt, Treas.

ALIQUIPPA, PA.—The council has voted to build certain sewers. Thos. F. McCormick, Ch. Burgess.

BELLE VERNON, PA.—The North Belle Vernon Sewer Co. has been incorporated, with a capital stock of $1,000, by W. Jones, W. A. Mitchner and others.

HAZLETON, PA.—Bids are asked until 4 p. m., Aug. 4, for constructing about 6,100 ft. of 18 to 6-in. pipe sewers. A. Brooks Cellax, Cy. Engr.

WILKESBARRE, PA.—Bids are asked until noon, Aug. 5, for furnishing sewer pipe and for constructing certain sewers. S. R. Catlin, Chn. Com.

BALTIMORE, MD.—The Maryland Construction & Contracting Co., just organized, has submitted a proposition to construct a system, work to begin within 60 days after the agreement has been signed. Nominal capital stock, $20,000. Francis E. Waters, Pres.; Thos. K. Carey, Treas., Equitable Bldg., Baltimore; Henry W. Warner, Secy., Treas. Baltimore Trust & Guarantee Co.; Major Venable, Chn. Council Sewerage Comn.

ROANOKE, VA.—It is proposed to spend $15,000 for sewers this season. Alderman Buckner, Chn. Com.

COLUMBUS, GA.—M. M. Moore, Clk. Council, writes us that the proposition to issue bonds for sewers will first have to be voted upon by the council, then by the citizens, and again by the council. If issue is authorized, it will be about four months before anything will be done.

NEWNAN, GA.—An election will be held Aug. 5 to vote on issuing $20,000 in 5% bonds for a system.

VALDOSTA, GA.—Civil Engineer Elkins, Macon, Ga., is reported to have made surveys for the proposed system. It is expected that work will be begun by Sept. 1.

BIRMINGHAM, ALA.—Alderman Jones has introduced a resolution authorizing the Mayor to appoint Aldermen Altman, Graham, McKnight and Jones a committee to investigate the pollution of Village Creek by the city.

BIRMINGHAM, ALA.—W. M. Drennen, Mayor, has signed the ordinance authorizing the construction of the 2d Ave. sewer extension, to cost about $50,500. F. V. Evans, Cy. Clk.

COLUMBUS, O.—Bids are asked until Aug. 23 for 3,000 ft. of 12-in. pipe sewer. W. H. Halliday, County Audr.

FINDLAY, O.—The board of health has recommended the construction of a system, at a cost of about $67,000.

LAKEWOOD, O.—The citizens of this hamlet have petitioned the trustees to take immediate steps towards preparing plans for a system, to cost about $150,000. O. C. Berchtold, Mayor.

LORAIN, O.—Bids are asked by the Johnson Co. for constructing about 3,500 ft. of 60 to 48-in. brick and 7,000 ft. of 30 to 24-in. pipe and 9,000 ft. of 12 to 8-in. pipe sewers.

McCONNELLSVILLE, O.—Bids are asked until Aug. 11 for pipe sewers in two streets. C. F. Sturtevant, Engr., 321 North Main St., St. Louis, Mo.; Geo. Birch, Clk.

YOUNGSTOWN, O.—Bids are asked until Aug. 12 for a sewer in Hilker St. C. E. Cross, Clk. Comrs.

INDIANAPOLIS, IND.—Bids are asked until Aug. 11 for constructing sewers in certain streets, and for brick paving in twelve streets. M. A. Downing, Chn. Bd.

MIDLAND, MICH.—The board of public works has appointed Riggs & Sherman, The Nasby, Toledo, O., to prepare plans for a system and for paving the business section of the city. Construction will not commence until next spring.

ROCKLAND, MICH.—The question of building a system and water-works is being considered.

CHICAGO, ILL.—Byrne & Shortall have been awarded the contract, at $101,587, for the Lawrence Ave. sewer. Contracts have also been let for sewers in a number of other streets to cost about $150,000.

ELGIN, ILL.—Press reports state that work on the proposed system will soon be begun.

GALESBURG, ILL.—Plans for a trunk sewer and other improvements to the system, to cost $39,000, are being considered. A report will soon be submitted. Address Mayor Carney or M. J. Blanding, Cy. Engr.

MORRIS, ILL.—John W. Alvord, The Rookery, Chicago, it is stated, will prepare plans for a system and for paving. Address Mayor Wilson and Alderman Mathews.

ST. CLOUD, MINN.—Bids are asked until Aug. 7 for building a sewer to cost $21,400. J. A. Martin, Clk.; S. S. Chute, Cy. Engr.

ST. PAUL, MINN.—It is proposed to construct a sewer in Cherokee and Smith Aves., at a cost of $13,977.

INDEPENDENCE, MO.—Bids are asked until Aug. 8 for septic tanks and filter beds in Mill Creek and Rock Creek District; estimated cost, $26,000.——The following bids for septic tanks and filter beds in Spring Branch were received July 18 and the contract was to have been let July 28, but was deferred on account of change of plan: C. Yetter, $5,215; Matt & Roberts, $5,170; Black, Laird & Shaw, $5,120; H. H. Pendleton, Cy. Engr.

WEBB CITY, MO.—It is probable that another election will be held to vote on the question of building two miles of sewers, at a cost of $7,000.

WESTPORT, MO.—H. A. Wise, Cy. Engr., Kansas City, Mo., is preparing plans for a system. An intercepting sewer will have to be built.

CORVALLIS, ORE.—The council has appropriated $40,000 for its share in the construction of the proposed system. The Agricultural College, it is said, will assist.

WATSONVILLE, CAL.—Bids are asked until 7 p. m., Aug. 4, for furnishing the material and for constructing a system. V. T. McCray, Engr., Watsonville; R. S. Tuttle, Cy. Clk.

WALLACE, IDAHO.—The following bids were received July 19 for constructing sewers: A. B. Smith, Portland, $16,516; Smith & Howard, Portland, $17,540; Jas. Marshall, $15,978; H. A. Steinke, $16,763; H. A. Steinke, $17,493; John Fink, Wallace, $13,317; Chas. Smith, Spokane, $12,818; Fife & Conlan, Wallace, $13,688.

HONOLULU, H. I.—Bids are asked until Aug. 10 for furnishing a flushing apparatus for the sewers in this city, as stated in our advertising columns. Address Rudolph Hering, Engr., 100 William St., New York, N. Y.

GARBAGE DISPOSAL—STREET CLEANING

BUFFALO, N. Y.—The contract for the collection of garbage, etc., has been let by the Board of Public Works to John C. Martin & Co., for sections Nos. 1 and 8, and to Richard Forrestel for sections Nos. 2, 3, 4, 5, 6 and 7.

HAZLETON, PA.—The plant in this city is reported to have been destroyed by fire July 15, causing a loss of $3,200.

MILWAUKEE, WIS.—We are informed that the following submitted bids July 27 for constructing a garbage disposal plant: Engle Sanitary & Cremation Co., Des Moines, Ia.; The Dixon Garbage Crematory Co., Toledo, O.; The Jacobi Co., Milwaukee; Duke & Kellner Construction Co., Milwaukee; Davis Garbage Furnace Co., Lancaster, Pa. The bids were not opened July 27, and will not be opened until the Supreme Court passes upon the litigation in regard to this matter, which will probably not be until the middle of September.

DES MOINES, IA.—Bids will soon be asked for the construction of a garbage crematory, to cost $15,000. Address City Solicitor Mershon.

TOPEKA, KAN.—The contract for a garbage crematory has been let to S. C. Thompson, of Kansas City, Mo., according to reports.

OAKLAND, CAL.—Dr. J. Maher, Chn. Com., Bd. of Health, is urging the construction of a crematory at once.

STREETS AND ROADS.

BATH, ME.—We are informed that it has been decided by the city to build asphalt walks in place of wooden ones now in use.

MANCHESTER, N. H.—We are informed that the proposed Ocean Boulevard has been surveyed and that the plans are made. Two miles of the boulevard will be constructed this season. The commission consists of Col. John Render, Portsmouth; Albert Botcheden, North Hampton, and Arthur W. Dudley, Civil Engr., Manchester.

MANCHESTER, N. H.—Reports state that it is proposed to spend $10,000 for improving the pavements in several streets.

BOSTON, MASS.—Bids are asked by the Massachusetts State Highway Commission until Aug. 3 for building 6,000 ft. of highway in Ashville, 4,700 ft. in Lenox, 4,700 ft. in Harwich and 5,000 in Barnstable.——Local reports state that the highway commissioners have awarded a contract for a third of a mile of highway in Taunton to J. J. Welch & Co., Salem, at $3,535; and to A. J. Wellington, Boston, at $13,700, for the contract for 3⅓ miles of highway in Weston.

LENOX, MASS.—Bids are asked until Aug. 3 for 5,150 ft. of macadam road. Leonard C. Peters, Richard A. Stanley, Seymour O. Tillotson, Selectmen.

ROCKVILLE, CONN.—It is reported that at a town meeting held on July 22 there was appropriated $9,000 for extending the macadam road from Talcottville.

THOMPSONVILLE, CONN.—It is stated that at a special town meeting $9,000 was appropriated for the macadamizing of several streets.

TORRINGTON, CONN.—Reports state that $4,500 has been appropriated for the improvement of Winstead Road at a special town meeting.

WILLIMANTIC, CONN.—It is stated that R. E. Mitchell is making a survey for a highway from the city line north of South Main St. to The Oaks.

BUFFALO, N. Y.—The following bids have been received by the commissioners for the paving of two streets: Swan St.—German Rock Asphalt & Cement Co., asphalt, $33,493; P. B. McNaughton, brick, $29,600. Grange Place—Henry P. Burgard, asphalt, $6,187; John Munns, vitrified brick, $5,200; Louis H. Gipp, brick, $5,275.

MECHANICSVILLE, N. Y.—Bids are asked by the Board of Trustees until Aug. 11 for paving Park Ave. with brick. James M. Healey, Village Clk.

NEW YORK, N. Y.—Bids are asked by the Department of Parks, Arsenal, Central Park, until Aug. 10, for 6,800 sq. ft. of concrete walk, and by the Department of Highways, 13 Park Row, for macadamizing Maryland Ave.

SCARSDALE, N. Y.—The following bids for macadam paving were received July 29 by the Board of Highway Commissioners:

	White Plains Road.	Cross Road.
B. F. Sweeten & Son, Camden, N. J.	$46,860	$8,948
J. R. Byron, Mount Vernon, N. Y.	40,912	8,276
McCabe & Duffy, White Plains, N. Y.	36,200	5,040
W. Rich, Greenwich, Conn.	35,858	8,482
Erbeck Bros., Homestead, Pa.	34,767	6,120
Lansders & Moore, Scarsdale, N. Y.	27,968	5,809
Daniel Murray, Port Chester, N. Y.	24,994	6,020
Bellew & Merritt Co., Tuckahoe, N. Y.	24,904	8,325
R. J. McCabe, Mamaroneck, N. Y.	....	*4,773

*Contracts awarded.

SCHENECTADY, N. Y.—Reports state that the contract for brick paving in Upper State St. has been let to John Twomey, at $30,216.

WHITE PLAINS, N. Y.—The lowest bidders for macadamizing the Mamaroneck Road were Duffy & McCabe, at $70,810.

HAMBURG, N. J.—Bids are asked until Aug. 10 for the construction of three sections of roadway. John P. Wilson, Chn. Hardyston Township Com.

NEWARK, N. J.—It is stated that the resolutions for paving 12 streets with asphalt have been vetoed by Mayor Seymour.

NORTH PLAINFIELD, N. J.—The question of laying sidewalks, crosswalks and macadamizing in this borough is being considered.

MILFORD, DEL.—Bids are asked until Aug. 9 for 1,335 sq. yds. of brick pavement, 5,025 sq. yds. of gravel roadway, 1,350 sq. yds. of brick gutters and 1,500 lin. ft. of curbing, as stated in our advertising columns. Theodore Towsend, Clk. Council; T. Chalkley Hatton,, Consulting Engr.

WASHINGTON, D. C.—Bids are asked by the District Commissioners until Aug. 14 for furnishing asphalt paving blocks.

BALTIMORE, MD.—The expenditure of $378,350 for paving and other public improvements is proposed.

CHARLESTOWN, W. VA.—Bids are asked until Aug. 10 for 16,880 sq. yds. of brick paving, as stated in our advertising columns. W. A. Hogue, Cy. Engr.

GREENSBORO, N. C.—Press reports state that the city has voted to issue $300,000 in bonds for improvements, of which $75,000 is for paving. J. S. Michauex, Cy. Clk.

GREENVILLE, ALA.—Bids are asked by the Board of Revenue of Butler county until Aug. 7 for grading about three miles on the Pine Apple Road. Address the County Engineer, 605 Clayton St., Montgomery, Ala.

BOWLING GREEN, O.—Bids are asked until Aug. 5 for macadamizing two miles of road in Center township. F. J. Brand, C. C. Gundy, Josiah Smith, County Comrs.; L. B. Fraker, Engr.

CLEVELAND, O.—Local reports state that the following bids have been received for paving Berea Road: M. F. Bramley, $45,397; Joseph Morgan, $47,142; John Hatter, $51,532; M. E. Cavanaugh, $53,441; Thomas Hughes, $53,722; M. F. Bramley, $56,129; John Hadley, $63,676; Northern Ohio Paving Co., $65,146; R. H. Gray, $70,000.

DAYTON, O.—The city has passed ordinances for the improvement of several streets and alleys. John Hoban, Pres. Council; John A. Hayne, Cy. Clk.

FINDLAY, O.—It is stated that the following bids have been received by the Board of Improvement for paving West Lima St.: Harry J. Hall, blue granite, $6,650; Wassall block, $6,376; Townsend block, $6,604; Hallwood block, $6,376; C. B. Metcalf, Bolan, $5,595; Hallwood, $6,307; Wassall, $6,466; blue granite, $6,786.

GALLIPOLIS, O.—Bids are asked until Aug. 7 for paving with brick, Court and State Sts. T. E. Bradbury, Cy. Clk.

GARETTSVILLE, O.—J. B. Barnard, Mayor, writes us that the city proposes to pave Main St. with brick and lay flag stone. Contracts to be let soon.

HAMILTON, O.—It is stated that the city engineer has submitted plans for the improvement of Butler Ave.; estimated cost. $12,936.

KENTON, O.—Bids are asked by the council until Aug. 10 for improvements to Lynn St., from Main St. to Wayne St. C. U. Faulkner, Cy. Clk.

McCONNELSVILLE, O.—Bids are asked until Aug. 25 for laying brick pavement and curbstones on Center St. and Public Square. L. J. Weber, Mayor; Geo. Birch, Clk.; Chas. F. Sturtevant, Engr.

NELSONVILLE, O.—Bids are asked until Aug. 26 for the improvement of Columbus St., as stated in our advertising columns. James Sharp, Clk.

TOLEDO, O.—The following contracts have been awarded: Paving Central Ave. with Wassall repressed block, C. W. McKinney, $24,723; paving 15th St. with Logan block and Berea curb, F. E. Cole, $2,783. The improvement of other streets is being considered.

TOLEDO, O.—Bids are asked until Aug. 28 for paving Delaware Ave. and other streets. W. O. Holst, Cy. Clk.

YOUNGSTOWN, O.—Bids are asked by the city commissioners until Aug. 12 for improving from North Walnut St. to Grove St. C. E. Cross, Clk.

HUNTINGTON, MD.—Bids are asked by the council until Aug. 8 for the construction of a 5-ft. brick sidewalk on Market St. Frank Guthrie, Cy. Engr.

MIDLAND, MICH.—Riggs & Sherman, The Nasby, Toledo, O., have been engaged to prepare plans and specifications for paving in the business streets.

YPSILANTI, MICH.—Reports state that the contract for paving of two blocks of Congress St. has been awarded to Howind & Bogart, at $16,665.

CHICAGO, ILL.—The following low bids have been received for asphalt paving: Rush St.—Bermudez Asphalt Paving Co., $21,176; Cedar St.—Western Paving and Supply Co., $9,438; South Claremont Ave.—Barber Asphalt Paving Co., $5,984; Gladys Ave.—Barber Asphalt Paving Co., $2,523; West Monroe St.—J. A. Sackley, $4,796.

LAKE BLUFF, ILL.—Reports state that the village board will soon ask for bids for the construction of Sheridan Road, through the corporate limits.

MOLINE, ILL.—It is proposed to pave portions of certain streets at once.

SALEM, ILL.—Bids are asked by city clerk until Aug. 12 for constructing 20,000 sq. ft. of granitoid walk. Thos. S. Marshall, Mayor.

KENOSHA, WIS.—Bids are asked until Aug. 7 for 2,425 sq. yds. of brick paving on South Main St. Gus. Jacob, Cy. Clk.

RICHLAND CENTER, WIS.—Bids are asked until Aug. 28 for the construction of three blocks of macadam with gutters and culverts on Court and Main Sts., as stated in our advertising columns. H. A. Burdick, Chn.

OMAHA, NEB.—Bids are asked by the board of public works until Aug. 11 for the improvement of Capitol Ave. and Harney St. Andrew Rosewater, Chn.; William Coburn, Secy.

CARROLLTON, MO.—A committee, composed of D. D. Thomas, W. M. Croton and Noah Cronett, has been appointed by the town council to purchase a rock crusher and roller.

KANSAS CITY, MO.—It is stated that Park Engineer Kessler is preparing the estimate for the cost of the ground to be condemned for Gillham Boulevard, and the extension of the Paseo South, which he will present with a resolution to the council.

DENVER, COLO.—It is reported that Champa St. will be paved with asphalt from 19th St. to Downing Ave.

SPOKANE, WASH.—The council has passed the ordinances providing for the improvement of Stevens, Lincoln and Monroe Sts., and the board of public works has advertised for bids.

TACOMA, WASH.—Local papers state that the council has passed resolutions for paving 6 streets with fir blocks.

OTTAWA, ONT.—It is stated that the bids for paving have been rejected, being above the engineer's estimate of about $7,000.

SMITH'S FALLS, ONT.—Local papers state that a by-law to raise $20,000 for the purchase of road machinery and permanent walks, will be submitted to the taxpayers on Aug. 14.

WINDSOR, ONT.—The people have voted in favor of the by-law authorizing the council to raise $200,000 for macadamizing 13 miles of road. Of this amount $20,000 will be used each year for the next ten years.

MANUFACTURING PLANTS.

BUFFALO, N. Y.—Reports state that the Barcalo & Ball Mfg. Co., Buffalo, is about to erect a 2-story factory building, 102 x 250 ft., to contain two 40-HP. boilers and a 100-HP. electric power plant. Green & Wicks, Archs.

TROY, N. Y.—The buildings occupied by Swift Bros., beef packers, at 2788 and 2790 6th Ave., are to be remodeled, at a cost of about $15,000.

ELIZABETH, N. J.—It is reported that plans are being prepared by David B. Provost, 78 Broad St., Elizabeth, for a 5-story brick and iron factory building, to be erected here at a cost of about $250,000.

MILLTOWN, N. J.—The Milltown India Rubber Co. has been incorporated, with $200,000 capital stock, to construct and operate a factory at this place. John C. Evans, Pres.; Matthew Suydam, Vice-Pres.

PHILADELPHIA, PA.—Edward W. Easby has prepared plans, according to reports, for the reconstruction of the 4-story factory building at 13th and Hamilton Sts., to cost about $29,000.——William Rea & Sons have been awarded the contract for erecting a new 8-story factory building at Juniper and Cherry Sts., to cost about $56,000. Charles Balderston, Arch.

WILMINGTON, DEL.—Reports state that the Diamond Steel Co. will begin erecting buildings for its new plant.

NORFOLK, VA.—It is reported that the Fidelity International Co. of Philadelphia, will build a plant opposite this city, which will manufacture cotton yarns, etc. J. S. Cochran, Gen. Mgr., is arranging details of the plant, which will cost about $200,000; two brick buildings, each 46x200 ft., and several smaller ones, will be erected by Geo. C. Dietrick, of Philadelphia, Pa.

COLUMBUS, GA.—A meeting was held recently by the directors of the Eagle & Phoenix Mills and it was decided to increase the stock by $150,000. An appropriation of $80,000 has been made by the directors for improving the water power of the company, by enlarging the race below No. 3 mill.

CROWLEY, LA.—Boland & Gschwind, New Orleans, La., have been awarded the contract for furnishing the machinery for a new 800-bbl. rice mill to be erected at this place. Freeland Bros., J. W. Roller and J. J. Thomas are among those interested.

LOUISVILLE, KY.—C. C. Bickel is reported to have bought the property at Preston and Lampton Sts. for the purpose of establishing a new plug tobacco factory; estimated cost of equipment, $150,000.

LINDEN, IND.—It is reported that the Marsden Co., manufacturers of cellulose, has begun the erection of a plant; estimated cost $150,000.

INDIANAPOLIS, IND.—W. J. Carlin, Trustee, Pittsburg, Pa., informs us that he has purchased the Premier Steel plant at Indianapolis and is figuring on operating the same. Many additions and alterations will be necessary, however, which will require some time to decide upon. Press reports state that a bridge and structural plant will be established.

PRINCETON, IND.—Reports state that John Gaffney, of St. Louis, Mo., will construct a $100,000 vitrified brick plant with a capacity of 75,000 brick daily.

JOLIET, ILL.—The fanrooom of the converter in the Federal Steel Co.'s plant was destroyed by fire, July 30, necessitating the closing of the mills for several weeks. Reported loss, $10,000.

MEXICO, MEX.—The Mexican government is reported to have granted a concession to Geo. K. Goehler to establish a factory here for the manufacture of iron and steel safes.

GAS PLANTS.

CRANSTON, R. I.—Bids are asked until Aug. 7 for furnishing 150 naphtha lights. D. D. Waterman, Clk.

ISLIP, N. Y.—Bids are asked by W. J. Wheeler, Secy., for 800 street lights, as stated in our advertising columns.

WILLIAMSPORT, PA.—Bids are asked until Sept. 1 for gas or electric lighting for five years from Dec. 1. Theo. Cornman, Cy. Clk.

NEW COMPANIES.—Union Consolidated Oil & Transportation Co., Fresno, Cal.; 1,000,000; Col. A. F. Harasztby, County Surveyor Hoxie, Dr. Maupinet.

Jackson Gas Burner & Supply Co., Portland, Me.; $100,000; F. A. Barbey, Cambridge, Mass.; J. C. Sullivan, Boston, Mass.; A. W. Coombs, C. H. Tolman, Portland.

Standard Gas & Electric Co., Raleigh, N. C.; $100,000; J. S. Carr, L. A. Carr, B. P. Williamson.

Napa Gas & Electric Co., San Francisco, Cal.; $100,000; J. L. Howard, Oakland; O. E. Clark, Napa; S. E. Keaney, San Francisco.

Electro Gas Lighting Co., New Market, Va.; $1,000; B. T. Bowman, Pres.; M. A. Price, Secy.; B. F. Conner, Treas.

Blennerhasset Drilling & Producing Co., Parkersburg, Va., $100,000; L. Skidmore, J. V. Carney, L. Dudley.

Ohio & West Virginia Oil & Gas Co., Boston, Mass.; $500,000; W. Frudenberger, P. P. Lewis, W. W. McKay, of Steubenville, O.

Buffalo Oil & Gas Co., Huntington, W. Va.; $2,000,000; W. H. Lyons, V. M. Green, C. T. Taylor.

MISCELLANEOUS CONTRACTS.

DREDGING.—Franklin, La.—Bids are asked until Aug. 20 for dredging 200,000 yds. F. R. Caffery, Secy. Com.

BASIN IMPROVEMENTS.—Albany, N. Y.—It is reported that the Albany Pier Co. intends to fill in the basin north of Columbia St.

DITCH.—Wapakoneta, O.—Bids are asked until Aug. 5 for constructing the Wierth Ditch at New Brennan. Samuel Craig, Engr.

MOTOR-VEHICLE.—Suffolk, Va.—W. B. Ferguson desires to purchase a motor-vehicle to be used in place of two-horse truck.

LEVEE WORK.—Greenville, Miss.—Bids are asked until Aug. 7 for 515,000 cu. yds. of levee work. W. E. Montgomery, Secy. and Treas.

EXCAVATING.—Franklin, La.—Bids are asked until Aug. 20 for excavating by dredge 200,000 cu. yds. F. R. Cafferty, Secy. Drainage Comn.

DOCK.—Kenosha, Wis.—Bids are asked until Aug. 21 for the construction of a dock, as stated in our advertising columns. Gus. Jacob, Cy. Clk.

DOCKS.—Havana, Cuba.—It is stated that the plans for the proposed wharves are completed and are now in the hands of Governor-General Brooke.

TUNNEL.—Watertown, N. Y.—The New York Air Brake Co. proposes to build a power tunnel through Beebee's Island at an estimated cost of $200,000.

BONDS.—Augusta, Me.—Bids are asked until Aug. 14 for the purchase of $40,000 of 3½% bonds. Samuel W. Lane, Mayor; J. R. Townsend, Treas.

TUNNEL.—Chattanooga, Tenn.—It is reported that the preliminary work has been begun by the Southern Ry. Co. on the proposed tunnel through Lookout Mountain.

DITCH.—Gayoso, Mo.—Bids are asked until Aug. 7 for cutting a ditch eight miles in length and 6 ft. wide, to contain about 30,000 cu. yds. E. C. Randolph, Engr.

RIVER BOAT.—New York, N. Y.—R. Marsans & Co., No. 80 Wall St., desire to purchase a large twin-screw or paddlewheel river boat for freight and passenger use.

WHARVES AND DREDGING.—Honolulu, H. I.—Reports state that Cotton Bros., Oakland, Cal., have been awarded the contract for the construction of government docks.

DITCH.—Axial, Colo.—Bids are asked for the construction of three miles of ditch below the old government bridge on the Yampa River. Address Patrick Sweeney.

BREAKWATER.—Boston, Mass.—Bids are asked until Aug. 29 for the construction of a section of breakwater at Gloucester Harbor. Col. Chas. R. Suter, U. S. Engr.

DREDGING.—Milford Haven, Va.—Bids are asked until Aug. 26 for dredging, as stated in our advertising columns. Lieut.-Col. Chas. J. Allen, U. S. Engrs., Washington, D. C.

CONDUITS.—Memphis, Tenn.—It is stated that a meeting will be held by Mayor Williams to consider the advisability of putting in conduits for telegraph and telephone wires.

TELEPHONE.—Carthage, S. Dak.—It is stated that F. E. Albright and associates have received a 20-year franchise for the erection and maintenance of a telephone system.

RIVER IMPROVEMENTS.—Stillwater, Minn.—Reports state that improvements will be made on the St. Croix River, between Stillwater and the Interstate Park at Taylor's Falls.

PARK.—Minneapolis, Minn.—It is reported that the plans for the improvement of the East River bank have been submitted to Secretary Ridgeway, Bd. Park Comrs.

TELEPHONE.—New York, N. Y.—The New York Telephone Co. will construct a 6-story building at Nos. 61 and 63 Irving Place, to be used as the central station of the 18th St. district.

LUMBER.—Albany, N. Y.—Bids are asked until Aug. 11 for furnishing approximately 2,000,000 ft. B. M. of plank, as stated in our advertising columns. John N. Partridge, Supt. Pub. Wks.

BOILER.—New York, N. Y.—Bids are asked by the fire commissioners, 157 East 67th St., until Aug. 16 for furnishing a boiler to the fireboat "Seth Low." John J. Scannell, Comr.

DOCK.—Baltimore, Md.—It is stated that the Northern Central Ry. Co. will include in the terminal improvements to be made at Brown's Wharf, foot of South St., a dock to be 325 ft.

PIER.—Chicago, Ill.—Press reports state that the Lincoln Park board will recommend the construction of a 300-ft. pier to be built 100 ft. from the shore at the sea wall south of North Ave.

HARBOR IMPROVEMENTS.—Montevideo, Uruguay.—The plans and specifications for harbor improvements have been approved by the Minister of Public Works. Estimated cost, $15,000,000.

PIER.—Gimli, Man.—Bids are asked until Aug. 22 for the construction of a pier at Gimli, Lake Winnipeg. W. F. Gowin, Engr., Winnipeg; E. F. E. Roy, Secy., Dept. Pub. Wks., Ottawa, Ont.

DOCKS.—Havana, Cuba.—It is stated that Colonel Bliss, Collector of the Port, is urging the adoption of a scheme for the construction of docks and warehouses, involving the expenditure of $1,000,000.

WHARF.—Oakland, Cal.—The North Oakland Improvement Club is urging certain city improvements, such as filling in the marsh land, and the construction of a wharf to deep water, as stated in press reports.

TUNNEL.—Butte, Mont.—It is stated that the Smoke House Copper Mining Co. has been organized to tunnel under the city for copper ore. James A. Murray and others are interested. Capital stock, $1,500,000.

TELEPHONE EXCHANGE.—Chattanooga, Tenn.—It is reported that P. T. Farnsworth, representing the North Electric Co. of Cleveland, O., is soliciting subscribers for a new telephone exchange for that company.

MONUMENT.—Chattanooga, Tenn.—It is stated that the plans for the peace monument on Lookout Point have been completed by Engineer A. J. Zabriskie, of the New York Monument Commission, 23 Fifth Ave., New York.

ORE DOCK.—Allauez Bay, Minn.—It is reported that the Eastern Ry. Co. Minnesota, will build an ore dock to be 2,000 ft. long and have 300 pockets, its handling capacity to be 70,000 tons per day. G. T. Slade, Supt., West Superior.

BREAKWATER AND PIER.—Chicago, Ill.—The Hausler & Lutz Towing & Docking Co. has secured a contract to build the outer breakwater of South Chicago.——The Illinois Steel Co. will build a new pier and a slip 1,100x200 ft.

DRAINING.—Crown Point, Ind.—Press reports state that at a meeting between John Brown, Pres. First National Bank, and Nelson Morris, B. J. Gifford and others, plans were devised for reclaiming 500,000 acres of marsh land by draining.

LEVEE WORK.—Vicksburg, Miss.—Bids are asked until Aug. 12 for the construction of a levee on Red River, at Hervey Canal, Caddo parish, La., crossing Scott Slough, and containing about 300,000 cu. yds. Maj. J. H. Willard, U. S. Engrs.

DRY DOCK.—Baltimore, Md.—It is reported that William Skinner & Sons have received a permit for the construction of a dry dock, to be 125 x 680 ft., at the corner of Belt and East Cross Sts. The work will be done by the Delaware Construction Co. of Philadelphia.

NAVY YARD IMPROVEMENTS.—Brooklyn Navy Yard, N. Y.—Reports state that improvements will be made to piers in navy yard so as to permit the accommodation of the largest vessels that are to be built; dry-dock No. 2 will be reconstructed with granite; estimated cost, $3,000,000.

EXHAUST FANS.—Baltimore, Md.—We are informed the following bids have been received by Lieut. Chas. W. Kutz, U. S. Engr., for furnishing seven electric exhaust fans: McCay Engineering Co., $1,485; Gleam & Morfit, $2,286; Morton, Reed & Co., $1,650. All bidders of Baltimore.

UNDERGROUND CROSSING.—Rome, N. Y.—Plans are being prepared for the construction of an underground crossing for the N. Y. C. & H. R. R. R. at James St., by City Engineer Coleman. The company will pay one-half of the cost; Rome, one fourth, and the state one-fourth; estimated cost, $40,000.

PIER.—Hoboken, N. J.—Captain Whittemore, of the Hamburg-American S. S. Co., is quoted to have stated that the contract for the construction of the pier to be known as Pier No. 2 has been let, and that the work will be pushed as rapidly as possible. Pier No. 1 will be extended 180 ft., making a total length of 780 ft.

CHANNELS.—Oconomowoc, Wis.—It is stated that the Oconomowoc Waterway Co. has been incorporated to construct channels connecting La Belle, Fowler and Oconomowoc lakes. The incorporators are Major Gustav Weissner and John Dupree, of Chicago; L. F. Hodges, of Milwaukee, and Hugo A. Ernst, of Oconomowoc.

COAL FIELDS.—Mount Pleasant, Pa.—It is stated that a 5,000-acre coal field near this city is to be developed with 1,200 ovens. The Federal Steel Co. is said to be at the head of the deal. C. H. Foote, of Chicago, Vice-Pres. Illinois Steel Co., and John P. Brennan, of Scottdale, Pa., have completed arrangements for development of a field in Fayette county.

RIVER IMPROVEMENTS.—Russia.—The State Department, Washington, D. C., has received information from Thomas Smith, U. S. Consul at Moscow, stating that the Minister of Railway and Communication, St. Petersburg, Russia, is contemplating the improvement of navigation on the River Volga and its tributaries. Engineer Poletaeff, who is now constructing a dam on the River Petroffsk, states that dredging would be useless, and proposes to pass the bars by canals of ordinary width, about six fathoms deep on both sides of the river; the canals will be 266 miles in length, and the cost will not exceed $10,000,000. It would be necessary to plant willow trees on the banks to prevent the formation of further bars by the widening of the river bed; the total cost is estimated at $20,800,000; work to be completed within 10 years.

CONTRACT PRICES.

WATER PIPE.—Oconomowoc, Wis.—Otto C. Peters, Cy. Clk., informs us that the following bids were received July 24, 1899, for furnishing cast-iron water pipe for the proposed works, as advertised in Engineering News; all f. o. b. cars Oconomowoc; a ton of 2,000 lbs.: United States Cast Iron Pipe & Foundry Co., Chicago. 4-in. pipe, $28.94 a ton; 6, 8, 10 and 12-in. pipe, $27.94 a ton; awarded contract. R. D. Wood & Co., Philadelphia, 4-in. pipe, $33.30 a ton; 6 and 8-in., $32.30; 10 and 12-in., $31.30 a ton of 2,000 lbs. The bids for laying this pipe, setting hydrants, etc., are asked until Aug. 7, as stated in our advertising columns last week.

GATE CHAMBER AND CONNECTIONS.—Boston, Mass.—The following bids were received by the Metropolitan Water Board July 27 for a gate chamber and connections at the Chestnut Hill Reservoir, as advertised in Engineering News:

Bids Received at Boston, Mass., July 27, 1899, for Gate Chamber and Connections.

Quantities.	Baker & Judson, Glovers-ville, N. Y.	D. F. O'Con-nell, Boston.	Guy C. Em-erson, Boston.	C. E. Trum-bull & Co., Boston.	Met. Con-tracting Co., Boston.	E. W. Everson, W. H. Sherman, Prov-idence.	Bruno & Salo-mone, E. Boston.	H. A. Hans-com & Co., Boston.	Nor-cross Bros., Boston.
Building and maintaining cofferdam and pumping and draining	$3,000	$5,300	$4,760	$4,549	$3,900	$6,500	$4,000	$8,000	$11,261
Earth excavation .....8,500 cu. yds.	$0.75	$0.70	$0.81	$1.00	$1.00	$0.75	$0.95	$0.85	$1.35
Rock excavation .....30 " "	3.00	4.00	3.00	5.00	3.00	5.00	3.00	8.00	2.50
Laying pipe:									
60.5-in., cast-iron .....1,160 lin. ft..	2.50	2.10	1.93	1.70	1.72	1.50	4.05	3.00	3.95
48-in. cast-iron ..... 625 " "	1.80	1.80	1.74	1.25	1.30	1.25	3.45	3.00	3.00
12-in., c.-i., for blow-offs. 75 " "	.50	1.00	1.00	.50	.41	.60	1.50	1.00	1.00
Chambers for blow-off valves 3 each...	60.00	50.00	52.00	47.00	80.50	150.00	50.00	40.00	95.00
Masonry: Portland cem. conc. 650 cu. yds.	8.00	7.50	8.25	7.00	8.00	8.50	10.00	12.00	7.60
Granite ashlar ..... 20 " "	15.00	20.00	18.00	17.00	22.50	24.00	75.00	25.00	12.50
Granite dimension stone.. 15 " "	30.00	70.00	35.00	63.00	60.00	45.00	100.00	60.00	40.00
Total	$19,658	$21,481	$21,540	$21,966	$22,120	$22,721	$28,782	$30,215	$35,418

MAIN SEWER.—Newark, N. J.—We are informed that the following bids were received July 20 for constructing the Clinton annexation sewer, Section No. 2; Headley & Christie awarded contract; Ernest Adam, Engr. Bd. St. and Water Comrs.:

Bids Received at Newark, N. J., July 20, 1899, for Constructing Clinton Annexation Sewer, Sec. 2.

Quantities.		Headley & Christie.	Dan'l P. Minnehan & Everet.	Harrison Construction Co.	Jno. F. Shanley.
40 × 60-in. brick sewer, 8-ring, 17-ft. cut.....	1,740 lin. ft..	$6.85	$6.47	$6.04	$7.20
36 × 54-in. " " " 18-ft. "	1,900 " "	5.27	6.66	5.39	6.75
34 × 51-in. " " " 15-ft. "	460 " "	5.05	5.38	4.52	5.90
28 × 42-in. " " " 14-ft. "	700 " "	5.76	5.25	5.02	5.75
26 × 39-in. " " " 13-ft. "	1,770 " "	4.34	4.56	4.83	4.68
24 × 36-in. " " " 12-ft. "	1,360 " "	3.97	4.20	3.95	4.54
64-in. brick sewer, 12-ring, 20-ft. cut.....	870 " "	12.19	12.50	10.25	15.25
60-in. " " " 16-ft. "	610 " "	11.21	10.30	9.23	14.40
50-in. " " 8-ring, 14-ft. "	420 " "	8.20	6.55	5.73	9.00
48-in. " " " 14-ft. "	670 " "	6.40	6.30	5.82	8.35
43-in. " " " 15-ft. "	570 " "	6.75	5.40	5.77	7.40
24-in., double-strength, pipe sewer, 11-ft. cut.....	760 " "	1.95	1.86	2.48	2.00
22-in., " " " 10-ft. "	230 " "	1.80	1.76	2.17	1.92
20-in., " " " 12-ft. "	840 " "	1.45	1.38	2.00	1.48
18-in., " " " 10-ft. "	4,300 " "	1.05	1.20	1.80	1.41
15-in., " " " 9½-ft. "	3,500 " "	.98	1.04	1.23	1.25
12-in. pipe sewer, 9-ft. cut.....	16,800 " "	.45	.70	1.00	.84
10-in. " " 8-ft. "	1,500 " "	.60	.47	.56	.78
8-in. " " 9-ft. "	550 " "	.50	.42	.50	.67
New basins	87 each...	88.00	95.00	100.00	110.00
Manholes over brick sewers	65 " ...	30.00	28.00	35.00	35.00
Manholes over pipe sewers	147 " ...	32.00	30.00	45.00	40.00
Special manholes	25 " ...	35.00	50.00	53.00	80.00
Total		$105,370	$111,271	$117,347	$131,212

DREDGING.—Norfolk, Va.—Maj. Thos. L. Casey, U. S. Engr., 166 Granby St., Norfolk, received the following bids July 21 for dredging and bank protections in the Virginia and North Carolina approaches to the Dismal Swamp Canal; the Virginia Dredging Co. was awarded contract:

Bids Received at Norfolk, Va., July 21, 1899, for Dredging in Virginia and North Carolina Waters.

Quantities.		P. Sanford Ross, Inc., Jersey City, N. J.	Virginia Dredging Co., Richmond, Va.	Sanford & Brooks Co., Baltimore, Md.	Morris & Cumings Dredging Co., New York.
Deep Creek dredging: (a) Deposited from scow....	250,000 cu. yds.	$0.19	$0.15	$0.14	$0.20
(b) Placed on shore	250,000 " "	.19	...	.14	.21
Turner's Cut, N. C., dredging placed on shore....	450,000 " "	.37	.25	.30	.35
Pasquotank River, N. C.: Dredging shipyard bar	30,000 " "	.19	.15	.18	.20
Protection points	60,000 " "	.37	.27	.28	.35
Croatan Sound, N. C.: Dredging	15,000 " "	.36	.30	.28	.35
Bank protection: Timber	14,000 lin. ft..	3.75	2.00	1.93	3.50
Brush	14,000 " "	1.25	1.50	1.00	1.10
Total, including Deep Creek, Va.		$317,300	$224,200	$237,420	$304,150

BREAKWATER AND TIMBER CRIB.—Black Rock Harbor, N. Y.—Maj. T. W. Symons, U. S. Engr., Buffalo, N. Y., received the following bids July 26 for constructing a timber crib and a concrete breakwater at Black Rock Harbor, as advertised in Engineering News; all bidders of Buffalo, except Hughes Bros. & Bangs, of Syracuse, N.Y.; contract let to Jas. B. Donnelly:

Bids Received at Buffalo, N.Y., July 26, 1899, for Timber Crib and Concrete Breakwater at Black Rock Harbor.

Quantities.		Jos. J. Church-yard.	James B. Donnelly.	Hughes Bros. & Bangs.	Edward J. Hingston.	Buffalo Dredging Co.
Excavation, scow measurement	34,000 cu. yds.	$0.13	$0.20	$0.13	$0.13	$0.11
Stone for foundation	7,000 tons....	.70	.69	.75	1.10	.75
Timber crib, complete, 22 × 36 ft.....	300 lin. ft..	69.00	62.00	65.61	77.50	66.00
" " 20 × 36 "	300 " "	63.65	56.00	60.10	71.15	61.25
" " 18 × 36 "	500 " "	58.15	48.00	55.13	66.50	56.00
" " 16 × 24 "	200 " "	36.14	30.00	34.90	42.25	35.50
" " 12 × 24 "	200 " "	28.60	24.00	27.26	33.75	28.00
" " 10 × 24 "	400 " "	24.83	21.00	24.00	29.25	25.00
" " 6 × 24 "	300 " "	15.84	15.00	15.41	20.30	15.75
Concrete blocks in place	4,350 cu. yds.	8.74	7.10	6.61	6.30	7.06
Masonry concrete in place	12,100 " "	5.49	5.65	5.79	5.30	5.65
Stone for filling superstructure.....	12,000 tons....	.70	.69	.75	.95	.75
Manhole covers in place	165 each...	4.75	3.00	3.00	2.50	2.50
Mooring rings in place.	12 " ...	45.00	50.00	35.00	35.00	40.00
Anchor bolts and iron ladders in place.	1,000 lbs.....	.12	.10	.04	.10	.04
Rip-rap stone in place	8,000 tons....	1.00	.84	.95	1.15	1.20
Total		$228,114	$210,175	$217,971	$236,023	$221,199

BRIDGE APPROACHES.—Indianapolis, Ind.—The county commissioners have let the contract for building the approaches to the Michigan St. bridge over Little Eagle Creek to Geo. W. McCray, at 17½ cts. a cu. yd.

BRICK PAVING.—Kewanee, Ill.—Frank F. Whiffen, Pres. Bd. Local Improvements, informs us that the following bids were received July 20, for brick paving; contract let to A. E. Rutledge; J. C. Quade, Cy. Engr.:

Bids Received at Kewanee, Ill., July 20, 1899, for Brick Paving.

Quantities.		A. E. Rutledge, Rockford.	Crews, Lough & Allison, Arcola.	Neich, Patterson & Striffler, Springfield.	J. Maffioli, Rockford.	J. B. McAuley, Galesburg.
Excavation	7,000 cu. yds.	$0.18	$0.22	$0.25	$0.15	$0.22
5 × 24-in. sandstone curbing	6,000 lin. ft..	.47	.45	.48	.43	.43
5 × 24-in. limestone curbing	6,000 " "	...	...	.48	.40	.48
5 × 24-in. concrete curbing	6,000 " "	.37	.42	.48	.42	.48
Brick paving	26,000 sq. yds.	1.39	1.41	1.45	1.50	1.48
Total		$39,620	$40,720	$42,330	$42,570	$42,900

PORTLAND CEMENT, ETC.—Mobile, Ala.—We are informed that the following bids were received July 20, 1899, for furnishing 6,000 bbls. of hydraulic Portland cement, etc.; Maj. W. T. Rossell, U. S. Engr.: Cement—A. C. Danner, Mobile, $2.85 a bbl. for Lagerdorfer; gravel, 1,300 cu. yds., W. Chase Spotswood, Mobile, $2 a cu. yd., and sand, 600 cu. yds. 90 cts.

DREDGING.—New York, N. Y.—We are informed that the following bids were received July 19, 1899, by Maj. H. M. Adams, U. S. Engr., Whitehall St., New York, for 20 cts.; Chas. H. Souther, Boston, (1) 25 cts., (2) $5; Augustus B. Martin, Boston, (1) 32½ cts., (2) $5; Eastern Dredging Co., Boston, (1) 28¾ cts., (2) $5.

REMOVING REVETMENT WORK.—Upper Canal, Portage Lake Ship Canals, Mich.—Maj. Clinton B. Sears, U.S. Engr., received the following bids July 22, 1899, for removing revetment work in the Upper Canal, Portage Lake Ship Canals, Mich., as advertised in Engineering News; contract let to John McCallum, of Hancock, Mich., all other bidders are from Duluth, except E. J. Hingston, of Buffalo, and Powell & Mitchell, of Marquette:

Bidder.	Sec. 1. Head Portage Lake, 500 lin. ft.	Sec. 2. Lily Pond, 1,700 lin. ft.	Sec. 3. Superior en-trance, 1,600 lin. ft.	Sec. 4. Old crib work, 234 lin. ft.	Total.
Porter Bros.....$2.20	$2.35	$1.05	$18.00	$10,987	
J. McCallum. 1.25	1.50	1.25	10.00	7,815	
Alex. Sang 10.00	1.25	1.50	9.00	11,631	
Frank Campbell... 1.50	2.00	1.50	10.00	8,890	
Hugo & Tims..... 2.15	2.15	1.75	8.00	9,402	
E. J. Hingston 3.00	3.00	2.50	9.50	12,823	
Powell & Mitchell. 3.00	4.00	2.25	20.00	16,580	

DREDGING.—Michigan.—Lt.-Col. G. J. Lydecker, U. S. Engr., Detroit, Mich., received the following bids July 24, 1899, for dredging in the Cheboygan and Alpena and other harbors in Michigan, as advertised in Engineering News: (1) being in Cheboygan Harbor; the amount to be expended is $15,500; (2) Alpena Harbor, amount, $7,500; (3) Saginaw River, amount, $25,000; (4) bar at mouth of Saginaw River, amount, $30,000; (5) Sebewaing River, amount, $35,000; (6) Pine River at St. Clair, amount, $5,000; (7) Belle River at Marine City, amount, $9,000; a cu. yd., scow measurement; C. E. Mitchell, Ludington, Mich., (1) 14 7-10 cts.; S. O. Dixon, Milwaukee, Wis., (1) 16 cts., (2) 13½ cts., (3) 32 cts., (4) 40 cts., (6) 14 cts., (7) 16 cts.; Bay City Dredging Co., Bay City, Mich., (2) 35 cts., (3) 19 9-10 cts., (5) 29 cts.; G. H. Breymann & Bros., Toledo, O., (3) 23 cts., (4) 25 cts., (7) 11 cts.; Campbell Bros., Sault Ste. Marie, Mich., (5) 16 cts.; Jas. Rooney, Toledo, O., (3) 32 cts., (4) 45 cts., (6) 9½ cts., (7) 9½ cts.; Edmund Hall, Detroit, (4) 29¾ cts., (5) 75 cts., (6) 9¾ cts., (7) 9⅞ cts.; Detroit Dredging Co., Ltd., Detroit, (6) 15 cts., (7) 10 cts.; Carkin, Stickney & Cram, Detroit, (3) 28 cts., (4) 35 cts., (5) 33 cts., (6) 13 cts., (7) 16½ cts.

DREDGING.—Ogdensburg, N. Y.—Capt. Graham D. Fitch, U. S. Engr., Oswego, N. Y., informs us that the following bids were received July 24, 1899, for dredging in Ogdensburg Harbor, as advertised in Engineering News, (1) being for hard-pan and boulders, 750 cu. yds.; and (2) for all other dredging, 87,500 cu. yds.: Carkin, Stickney & Cram, Detroit, Mich., (1) 65 cts., (2) 18½ cts.; Wm. J. Daly, Ogdensburg, N. Y., (1) 35 cts., (2) 11 cts.; Edward J. Hingston, Buffalo, N. Y., (1) 35 cts., (2) 11¼ cts.

SEWERS.—New York, N. Y.—The following bids were received July 26, 1899, for sewers in 22 streets, Brooklyn:

Quantities.		J. J. Creem, Brook-lyn.	Edwd. Gorman, 725 Jefferson Ave.	Norton & Gorman, Brook-lyn.
Pipe sewer:				
24-in., cement ..	1,880 lin. ft..	$1.78	$1.58	$2.00
18-in., " ..	2,280 " "	1.30	1.18	1.50
15-in., " ..	2,320 " "	1.15	.98	1.25
12-in., " ..	15,830 " "	1.00	.68	1.00
Manholes	214 each...	31.00	30.00	37.50
Street basins	35 " ...	90.00	79.00	95.00
Timber (fndatn) ..	34,000 ft. B.M.	25.00	20.00	20.00
Total		$35.442	$28.563	$37.940

BRICK PAVING.—Chester, Pa.—The following contract for brick paving in Edgemont Ave., between 12th and 15th Sts., has been let to W. E. Reilley: Montello brick, $1.63 a sq. yd.; Savidge, $1.79; crossing stones, 70 cts.; curb stones, 70 cts.; resetting curb, 7 cts.; resetting crossing stones, 7 cts.; resetting stone pavement, 1 ct.

ENGINEERING MATERIAL PRICES

TRACK MATERIAL—
- New York—Angle bars, 1.8 cts. to 1.9 cts.; spikes, 1.9 to 2 cts.; track bolts 2.25 to 2.3 cts.;
- Chicago.—Angle bars, 1.7 to 1.8 cts.; spikes, 2.5 cts.; track bolts, hexagonal, 3.10 to 3.15 cts.; square, 2.9 to 3 cts.

RAILS, STEEL—
- New York, new, $29 to $30; old iron, $20 to $21; old steel, $15.50 to $16.50.
- Chicago, new, $31; old iron, $19.00; old steel, $15 to $15.50.
- Pittsburg, new, $28 to $32; old iron, $21 to $22; old steel, $16 to $17.

STRUCTURAL STEEL—
- New York—Beams, 2.15 to 2.2 cts.; channels, 2.15 to 2.2 cts.; tees, 2.2 to 2.25 cts.; angles, 2.15 to 2.2 cts.; rivets, 1.85 to 1.90 cts.
- Chicago—Beams, 2.15 cts.; channels, 2.15 cts.; tees, 2.20 cts.; angles, 2.15 to 2.25 cts.
- Pittsburg—Beams, 2 to 2.1 cts.; channels, 2 to 2.1 cts.; tees, 2 to 2.3 cts.; angles, 2.15 to 2.25 cts.; zees, 2 cts.

PLATES AND SHEETS—
- New York—Universal mill plates, 2.5 to 2.6 cts.; tank, 2.7 to 2.75 cts.; shell, 2.8 to 2.9 cts.; flange, 2.9 to 2.95 cts.; firebox, 2.9 to 3 cts.
- Chicago—Universal mill plates, 2.75 to 2.80 cts.; tank, 2.8 cts.; shell, 2.9 cts.; flange, 3 cts.; firebox, 3 to 5 cts.; sheets, 3.15 to 3.25 cts.
- Pittsburg—Universal mill plates, 2.70 cts.; tank, 2.5 to 2.6 cts.; shell, 2.6 to 2.65 cts.; flange, 2.7 to 2.75 cts.; sheets, 3.05 to 3.1 cts.

MERCHANT STEEL—
- Machinery per lb., 2.7 to 2.8 cts.

IRON—
- Pig iron:
  - New York—No. 1, $20.50 to $21; No. 2, $18.50 to $18.75.
  - Chicago—No. 1, $20 to $20.50; No. 2, $19.50 to $20.
  - Pittsburg—No. 1, $19.75 to $20.50; No. 2, $19.25 to $20.
- Bar iron:
  - New York, common, 1.80 to 1.85 cts.; refined, 2 to 2.05 cts.

LUMBER—
- New York:
  - Hemlock timber, 20 ft. and under, per M, $13.00.
  - Piling, Eastern spruce, 35 to 40 ft., 30 to 40% 12-in. butts, 4.00 cts.
  - Spruce, special cargoes, per M, $15.00 to $18.00.
  - Yellow pine, random cargoes, $18.00 to $20.00.
  - North Carolina pine, $2.25 to $2.40 advance over Norfolk rates.
- San Francisco:
  - Oregon pine, per M, $15.50 to $17.50.
  - Redwood, per M, $18.20 to $20.00.
  - Redwood tank stock, up to 10 ft., $24.00 to $25.00.

GENERAL MATERIALS—
- Lead, New York, 4.55 to 4.57 cts.
- Solder, per lb., 14½ to 15 cts.
- Spelter, per lb., 5.85 to 6.2 cts.
- Copper ingots, 18.50 cts.

INDUSTRIAL NOTES.

MERCHANT & CO., Philadelphia, has shipped, among other orders, 30,000 lbs. of seamless drawn condenser tubes to Glasgow.

THE BROOKS LOCOMOTIVE WORKS, Dunkirk, N. Y., has enlarged its plant by the addition of a new locomotive erecting shop 60 x 254 ft.

THE STANLEY ELECTRIC CO., Pittsfield, Mass., has delivered two 640-HP. electric generators for the new plant of the Union Gas & Electric Co., Waterville, Me.

THE MOORE MFG. CO. announces its removal from Buffalo, N. Y., to the Dunfee Building, Syracuse, N. Y. The company sells and leases trench excavating machines.

THE J. G. BRILL CAR CO., Philadelphia, is building electric street cars for the government street railway of Sydney, New South Wales, and for lines in Paris and London.

THE UNION BRIDGE CO., 1 Broadway, New York, is reported to have received from London a contract for a seven 50-foot span bridge for Jacobsdal, in the Orange Free State.

THE AMERICAN IMPULSE WHEEL CO., 120 Liberty St., New York, is making shipments of water wheels for electric transmitting purposes to Christiania, Norway, and another of less importance to Havre for some interior towns in France.

THE WELLMAN-SEAVER ENGINEERING CO., Cleveland, is announced to have received, in competition with European firms, a contract for enlarging the plant of the Newport Iron Works, Newport, Wales, at a cost of about $1,500,000.

THE SCHUYLKILL BRIDGE WORKS, Phoenixville, Pa., owned by John Denithorne, Sons & Co., is reported to have been purchased by the Pennsylvania Boiler Works, Philadelphia, and is to be changed into a plant for the manufacture of the Heine boiler.

THE WESTINGHOUSE ELECTRIC & MFG. CO., Pittsburg, has a contract for the immediate delivery of three temporary electric light plants on the Chinese Eastern R. R. The present contract is said to amount to about $40,000, with $200,000 ultimately involved.

THE GOLD CAR HEATING CO., and the Gold Street Car Heating Co., New York, report that the number of orders which they have taken during the past few months, surpass all former records of the companies. Prominent among the recent orders is one from the Boston Elevated Ry. Co. for electric heaters for 100 new cars.

THE NEW YORK AIR BRAKE CO., New York, is reported about to increase its capital stock from $5,000,000 to $10,000,000 and to erect factories in several European cities. Its foreign orders are said to include a contract for equipping locomotives for the Russian Government railways.

THE NATIONAL ELECTRICAL MFG. CO., Milford, Conn., has received an order from its foreign agents for 50 fire-alarm instruments and apparatus for an English electrical firm. The instruments will be placed in Windsor Castle, and all of the wiring and arrangements will be done according to American ideas.

THE BUFFALO FORGE CO., Buffalo, has secured the contract for the entire supply of the forges and blowers for use in the temporary machine shops on the Port Arthur section of the Chinese Eastern R. R. The order was secured through the M. S. Friede Co., of New York, and calls for 106 forges and 14 blowers.

THE AUTOMATIC RAILWAY GATE CO., Lynn, Mass., a stock company of $500,000 capital, has purchased from Fred. H. Nichols, of Lynn, all the rights, titles and interests of and to his patent railway crossing gate for grade crossings. The company will soon be prepared to furnish this new safety gate to railway companies.

THE AMERICAN DIAMOND ROCK DRILL CO., 120 Liberty St., New York, reports among recent sales one diamond drill for South America, one for Canada, two for the Southern States, one for Pennsylvania and two for Central America. The supply trade is also keeping the shops busy, and the outlook seems good for increased business.

THE ROGERS LOCOMOTIVE WORKS, Paterson, N. J., is building a freight locomotive for the Illinois Central R. R., reported as to weigh 214,000 lbs., and as to be the third largest built in this country. The company is building a locomotive for the Mexican Central R. R. to weigh 195,000 lbs., and one for the Great Northern R. R. to weigh 184,000 lbs.

THE WILLIAMS CRUSHER & PULVERIZER CO., St. Louis, is doing a much larger export business than ever before. Recent shipments are said to include bone grinding machines to Cuba, brick making machinery to Norway, ore crushers to South Africa. The eastern officers of the company are in the Washington Life Building, New York, and the Stephen Girard Building, Philadelphia.

THE CHICAGO PNEUMATIC TOOL CO., New York and Chicago, report sales of 13 hammers and drills to the New York Navy Yard, including one of its shell riveters for bottom riveting, and 18 pneumatic tools for the Chinese Eastern Ry. The latter order included a Hall duplex compressor, furnished by the Pneumatic Supply & Equipment Co., with receiver, hose, etc., to complete the installation.

THE N. O. NELSON MFG. CO., St. Louis, is said to be completing arrangements for building an extensive soil pipe plant at Bessemer, Ala., on the site of Beggs's foundry. It is said the work of erecting the building will begin Sept. 1. This company is not interested in the newly organized Central Foundry Co., which is said to control all existing plants in Alabama for the manufacture of soil pipe.

THE NEW YORK FILTER MFG. CO., 26 Cortlandt St., New York, reports the following contracts for city waterworks filter plants: Hornellsville, N. Y., 3,000,000 gallons capacity; Columbus, Miss., 1,000,000 gallons; Benwood, W. Va., 1,000,000 gallons; Rome, Ga., 1,500,000 gallons, and orders have been placed with the O. H. Jewell Filter Co., of Chicago, for plants at Clarksville, Tenn., 1,500,000 gallons, and Chihuahua, Mexico, 1,000,000 gallons capacity.

THE WESTERN CAMERA MFG. CO., 135 Wabash Ave., Chicago, Ill., announces that it is making an instrument especially adapted for the use of engineers and architects for taking photographs as their work progresses. This is known as the "Long-Focus Cyclone," the particular features of which are unusual bellows capacity, reversible back and convertible system of lenses by which various sizes of the photograph can be made without changing the position of the camera.

THE MARYLAND STEEL CO., Sparrow's Point, Md., has an order from Andrew Onderdonk for two sea-going dredges for his contract in dredging a 40-ft. channel 2,000 ft. wide, from the Narrows, in New York Bay, to the sea. They will be 320 ft. long, 48 ft. beam and 26 ft. deep, with hoppers of 3,500 tons capacity. They will have twin screws and triple-expansion engines, giving a sea speed of 12 miles per hour while going to and returning from the dumping grounds at sea.

THE BARR PUMPING ENGINE CO., Philadelphia, has just completed the test of a 10,000,000-gallon vertical triple expansion crank and flywheel pumping engine at Kansas City, and the engine has earned the builders a bonus by largely exceeding the guarantee. The test was conducted by Mr. Wynkoop Kiersted, Engineer for the city of Kansas City, and Mr. William McLaughlin, Superintendent of the Barr Pumping Engine Works. The Barr Pumping Engine Co. reports that it is very busy on this class of machinery.

THE BUFFALO FORGE CO., Buffalo, sends an announcement to its customers and the trade in general, that the statements that the company is owned and controlled by competitors, who have consolidated their interests, is incorrect. The Buffalo Forge Co. is not interested in any combine, and is owned and controlled solely by Wm. F. Wendt and Henry W. Wendt, doing business under the firm name of The Buffalo Forge Co., at Buffalo, Chicago, and New York city. Neither member of the concern owns or controls any stock in any other company manufacturing fan-system heating, ventilating and drying apparatus, engines, blowers, etc.

BRYAN & HUMPHREY, St. Louis, report that the installation of 2,500 HP. for the Imperial Central Station, St. Louis, is about completed, and an addition of 1,500 HP. of engines, generators and boilers is being installed. They are installing an isolated electric lighting plant and electric elevators in the Nugent dry-goods store, and have a contract for electric elevators for the new Lindell and Boyle buildings, and are lengthening the chimney of the Mercantile Club. Their out-of-town work includes a central station at El Paso, Tex., a 500-HP. boiler plant for the state lunatic asylum at St. Joseph, Mo., a 1,200-light isolated lighting plant for the state lunatic asylum at Nevada, Mo., and an electric pumping station at White Hall, Ill.

THE PRESSED STEEL CAR CO., Pittsburg, reports that its pressed steel bolsters have been specified for 500 Illinois Central coal cars, and 200 Swift & Co.'s refrigerator cars, recently ordered. The volume of business done from June 24 to July 27, inclusive, in truck frames, bolsters and center plates, amounted to $562,000. Mr. G. B. Macklin, until recently special agent for the Pressed Steel Car Co., has been made assistant general sales agent, with headquarters in the Empire Building, 71 Broadway, New York. Mr. R. L. Gordon for a long time with the Fox Pressed Steel Equipment Co., and more recently in the Chicago office of the Pressed Steel Car Co., has been transferred to the Wood's Run (Allegheny) plant of the latter company, where he will confine himself largely to engineering work.

THE PECKHAM TRUCK CO., Kingston, N. Y., states that the growth in the export trade of motor trucks has been phenomenal. Three years ago it amounted to very little for England, but America is now supplying 95% of the rapidly increasing demand. The company has shipped trucks for the street railways of Middlesborough, Bristol, Norwich, Coventry, Halifax, Leeds, Dover, Sheffield, Bradford, North Staffordshire, Herne Bay Pier, Walton-on-Naze, Ashton and Dudley. The Cork and Portrush roads in Ireland, have exclusively adopted its specialties, and the city of Glasgow has also been a customer. Among other electric lines which it has equipped, are those of Sydney, New South Wales; Zurich, Switzerland; Colombo, Ceylon, and the Daishi, Odawara, Niati, Nagoya and Kyoto electric railways in Japan. It has also furnished the motor trucks of two important roads in Hamburg and Berlin. The company is exceedingly busy at present, having orders in hand from one concern alone in England which aggregate 550 trucks, besides heavy contracts for roads in Australia, Japan, Russia and South America. These, coupled with the domestic demands, will be sufficient to keep the factory going day and night for the next eight months, notwithstanding that it is proposed to double the capacity of the works.

THE CENTRAL FOUNDRY CO. has been organized with a capital stock of $14,000,000 as a consolidation of manufacturers of plumbing materials, including soil pipe and soil pipe fittings. The new company includes 28 manufacturing concerns, said to control more than 80% of the soil pipe produce of the United States. The list of the concerns is as follows: Monitor Iron Works, New York; J. L. Mott Iron Works, New York; Henry McShane Mfg. Co., Baltimore; J. Regester & Sons, Baltimore; A. L. Sweet Iron Works, Medina, N. Y.; Bigelow Mfg. Co., Medina, N. Y.; Beach & Co., Medina, N. Y.; Midvale Foundry Co., Allentown, Pa.; Phoenix Foundry & Machinery Co., Landsdale, Pa.; Hoffman, Billings & Weller Mfg. Co., Gadsden, Ala.; Shuster Foundry Co., South Pittsburg, Tenn.; E. L. Tyler & Co., Anniston, Ala.; Alabama Pipe Co., Bessemer, Ala.; Bell Mfg. Co., Vincennes, Ind.; Rundle-Spence Mfg. Co., New Orleans; Kingsley Foundry Co., Hammond, Ind.; S. L. Bigelow Mfg. Co., St. Charles, Ill.; Wilmington Pipe & Foundry Co., Wilmington, Del.; Illinois Malleable Iron Co., Chicago; Ahrens & Ott, Louisville, Ky.; Humphreys Mfg. Co., Mansfield, O.; A. T. McDonald & Morrison Mfg. Co., Dubuque, Ia.; Flush Tank Co., Aurora, Ill.; C. A. Blessing, Philadelphia; Foran & Abendroth, Flemington, N. J.; Bartlett & Hayward Co., Baltimore; Jones Hollow Ware Co., Baltimore; Cassidy & Adler, New York City.

THE NATIONAL TUBE CO. has been organized with a capital stock of $80,000,000. The company owns plants as follows: National Tube Works Co., McKeesport, Pa.; Riverside Iron Works, Blast Furnaces, Rolling Mills & Pipe Works at Wheeling, W. Va.; U. S. Seamless Tube Co., Christy Park, Pa.; National Rolling Mills, McKeesport, Pa.; American Tube & Iron Co.'s plants at Youngstown, O., and Middletown, Pa.; National Forge & Iron Co., McKeesport, Pa.; Pennsylvania Tube Works, Pittsburg, Pa.; Boston Iron & Steel Co., McKeesport, Pa.; Allison Mfg. Co.'s tube mill at Philadelphia; Monongahela Furnaces, McKeesport, Pa.; Morris Tasker & Co.'s Delaware iron plant at New Castle, Del.; Republic Iron Works, Pittsburg, Pa.; Oil Well Supply Co.'s Continental Tube Works and Elba Iron Works at Pittsburg, Pa.; National Galvanizing Works, Versailles, Pa.; Chester Pipe & Tube Co., Chester, Pa.; Monongahela Steel Works, McKeesport, Pa.; Hooven Plant at Norristown, Pa.; Oil City Tube Works, Oil City, Pa.; Syracuse Tube Works, Syracuse, N. Y.; Ohio Tube Co., at Warren, O.; Western Tube Co. (contract until 1902 and one third stock ownership), Kewanee, Ill. These works are now turning out about 1,100,000 tons of all classes of tubular goods of wrought iron and steel, from 1-16 of an inch to 3 ft. in diameter. The president of the company is quoted as stating that the company supplies the oil fields of Russia, Bulgaria, Java, Japan, and Italy and Canada with tubular goods; the Scandinavian Peninsula, Holland, Germany, Mexico, Central and South America, China, India, Australia and other countries and colonies with large quantities of merchant pipe; it also supplies the South African gold and diamond fields with hydraulic and tubular supplies. It was but lately that the company shipped the order of 10 miles of 28-in. steel, high-pressure water-line pipe to the Rand mines, earning three bonuses of £1,000 each for quick delivery. The company gives employment to 25,000 men, there being 8,000 at its McKeesport mills alone. The officers are: Pres., Edmund C. Converse; Chn. Bd., Joshua Rhodes; 1st Vice-Pres., in charge of manufacturing, F. J. Hearne; 2d Vice-Pres., in charge of mercantile affairs, Horace Crosby; 3d Vice-Pres., financial, Francis L. Potts; Gen. Mgr., manufacturing department, A. S. Matheson; Treas., Arthur F. Luke; Asst. Treas., (at Pittsburg), Wm. H. Latshaw; General Counsel, Sullivan & Cromwell. The official and financial headquarters will be at New York; the manufacturing headquarters at Pittsburg.

NEW COMPANIES.—Havana Dredging Co., incorporated in New Jersey; $500,000; to do a general dry docking and wrecking business in Havana harbor and other seaports in Cuba; Louis F. Dodd, Montclair, N. J.; James T. Sparkner and Horace E. Parker, New York.

Roth Gas Engine Co., Indianapolis, Ind.; $50,000; Chas. C. Roth, Chas. E. Barrett, Benjamin F. Haugh.

Louis Drach Construction Co., Cincinnati, O.; $10,000; Louis Drach, Wm. Halifell, Moses Matzer, J. C. Brinkman.

Des Moines Electric & Construction Co., Des Moines, Ia.; $10,000; to operate a telephone and electric jobbing business; W. S. Small and C. N. Bartlett.

Cumberland Mountain Coal & Coke Co., Louisville, Ky.; $10,000; Karl F. Bierach, Edmund A. Starling.

Sanford Construction Co., Sanford, Me.; $10,000; to conduct a railway construction business; Pres., Louis B. Goodall; Treas., Fred. J. Allen, of Sanford, Me.

Delmar Gold Mining Co., Portland, Me.; $500,000; to conduct a mining business; Pres., Edward K. Milliken; Treas., H. P. Sweetser, of Portland, Me.

Fort Wayne Electric Works, Schenectady, N. Y.; $500,000; to manufacture and sell electrical and other apparatus; Henry Paul, C. S. Bass and J. W. White, Fort Wayne, Ind., and S. O. Greene, J. P. Felton, E. E. Gilbert.

Baltimore Telephone Construction Co., Baltimore, Md.; $10,000; William H. Martin, Pinkney W. Wilkinson, Chas. J. Taylor, Harry W. Rogers and Jesse Slingluff.

Winchester Telephone Co., Frankfort, Ky.; $3,000; D. L. Pendleton and others.

Fireproofine Co., Trenton, N. J.; $2,000,000; to manufacture and deal in chemicals, processes for rendering all fabrics and materials fireproof and also to manufacture and deal in fireproof material itself; A. L. White, W. P. Rice, W. A. Towner, D. B. Provost, Jersey City.

Atlantic Brass Co., Trenton, N. J.; $1,000,000; to manufacture and deal in brass fittings and patented car-axle bearings and railroad appliances; Scott Lanahan, Charles M. Reynolds, Henry Meyers, Charles H. Burke, of New York; Robert L. Green, Elizabeth, N. J.

Electric Automobile and Mfg. Co., Trenton, N. J.; $500,000; Chas. P. Scott, of New York, and Frederick W. Gaston; Edgar J. Runyon, Elizabeth, N. J.

Le Sueur Telephone Co., Le Sueur, Minn.; $10,000; F. H. Wells, James McKasey and M. W. Grimes.

Exchange Telephone Co., Littleton, W. Va.; $25,000; commencing with $500; B. J. Farrell, Littleton.

Chicago Electric Vehicle Transportation Co., Chicago, Ill.; $10,000; to manufacture and operate electric vehicles and automobiles; Carl Meyer, Charles R. Holden.

Macon County Telephone Co., Decatur, Ill.; $20,000; A. L. McNabb, W. P. Shade, C. S. Hankins, H. M. Whitmer and John Van Gundy.

Binghamton Telephone Co.; Binghamton, N. Y.; $100,000; to operate in Broome, Tioga, Chenango, and Delaware counties; T. B. Crary, G. C. Bayles, A. G. Wales.

Abbott-Duson Canal Co., Newark, N. J.; $500,000; to construct canals and other waterways; C. C. Duson, M. Abbott, and C. L. Cruppen, of Crowley, La.

Salem Telephone Co., Salem, Mass.; $100,000; Col. H. A. Hale, J. M. Parsons, W. S. Mackintire, G. A. Brown.

Citizens' Telephone Co., Ellicott City, Md.; $15,000; Frederick H. Braillers, W. Davis, Jr., J. S. T. Waters.

Wadder Boiler Compound Co., South Omaha, Neb.; $20,000; to manufacture and sell boiler compounds; R. C. Peters, J. Fitzgerald, F. J. Fitzgerald, W. S. Curtis, W. F. White, all of South Omaha.

Clatonia Telephone Co., Clatonia, Neb.; $5,000; S. Borkey, F. W. Jones, J. H. Steinmeyer, H. H. Jones, H. Albert, all of Clatonia.

Arthur Fritsch Foundry & Machine Co., St. Louis, Mo.; $14,000; A. Fritsch, Lydia Fritsch, C. Weber, of St. Louis.

Cape Construction Co., 802 Broad St., Newark, N. J.; $125,000; Christoper H. R. Woodward, Morristown, N. J.; Max B. Ziegler and Lewis D. Horigan, of Newark, N. J.

Automatic Air Carriage Co., New York; $600,000; to manufacture and sell horseless vehicles; Edward A. Willard, E. A. Willard, Jr., Robert R. Blood, Charles J. Hensley, Seymour L. Husted, Jr., all of New York.

Twin City Telephone Co.; $40,000; to operate a line between North Tonawanda and Buffalo; J. H. Barnard, Tonawanda, N. Y.; M. J. Wattengel, North Tonawanda, N. Y.; G. A. Currier, Buffalo.

Liquefied Air, Power & Motor Co., New Jersey Corporation Guarantee & Trust Co.'s Bldg., Camden, N. J.; $125,000; to manufacture liquefied and compressed air; Charles A. Wilson, Justice Cox, Jr., Harry B. Paul.

Amboy Telephone Co., 70 Smith St., Perth Amboy, N. J.; $10,000; to build and operate a telephone line; Andrew Dingler, Jersey City; Richard S. Bowen, Harrison.

Rennacker Construction Co., Chicago, Ill.; $3,000; to construct cement sidewalks, etc.; A. M. Barker, E. F. Rennacker, G. Esmond.

American Rotary Enging Co., Minneapolis; $5,000,000; to manufacture rotary engines and other machines; J. W. Powers, Geo. Graham, M. I. McAllister, of Minneapolis.

Nichols Bridge Co., Smithsboro, N. Y.; $30,000; Harry B. Wintres and Eugene E. Bailey, Smithsboro, N. Y.

Warwick Iron & Steel Co., Philadelphia, Pa.; to manufacture iron and steel; $1,500,000; W. M. Higbee, M. J. Greenbaum, A. L. Bersch, P. Stratton, T. J. Hahn, all of Philadelphia.

Pennsylvania Smelting Co., Pittsburg, Pa.; $25,000; to manufacture iron and steel; G. Faunce, Carnegie, Pa.

Solid Steel Casting Co., Chester, Pa.; $10,000; to manufacture iron and steel; L. S. Bent, Overbrook, Pa.; F. W. Wood, Baltimore, Md.

Edison-Portland Cement Co.; $11,000,000; to manufacture and deal in Portland and other cements; Thomas A. Edison, Orange, N. J.; Harlan Page and Luther S. Dent.

Citizens' Telephone Co. of Texas, Houston, Tex.; $100,000; to build and maintain a telephone system in Houston and other towns; A. L. Waterbury, E. A. Glass, Houston.

Contractor's Plant Co., Me.; $250,000, commencing with $500; to manufacture tools and machinery for contractors; F. B. Gilbert, Pres., Boston, Mass.; J. H. Colby, Treas.

Mail Delivery Notice.

Special efforts are made to deliver our paper to its readers each week at the earliest possible moment. All papers for Boston, Philadelphia and Washington are usually in the New York post-office by midnight Wednesday evening; all Brooklyn and New York city papers by 3 o'clock—in ample time for the first delivery Thursday morning. The entire edition, including foreign copies, is in the mail soon after 6 o'clock Thursday morning. If your paper is not received promptly we advise that you make a complaint to your local post-office officials.

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